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(12) **United States Patent**
Kobayashi et al.(10) **Patent No.:** **US 9,084,420 B2**(45) **Date of Patent:** ***Jul. 21, 2015**(54) **AMIDE DERIVATIVE, PEST CONTROL AGENT CONTAINING THE AMIDE DERIVATIVE, AND PEST CONTROLLING METHOD**(71) Applicant: **Mitsui Chemicals Agro, Inc., Tokyo (JP)**(72) Inventors: **Yumi Kobayashi, Chiba (JP); Hiroyuki Katsuta, Chiba (JP); Michikazu Nomura, Chiba (JP); Hidetaka Tsukada, Fukuoka (JP); Atsushi Hirabayashi, Fukuoka (JP); Hidenori Daido, Shiga (JP); Yusuke Takahashi, Fukuoka (JP); Shinichi Banba, Chiba (JP)**(73) Assignee: **Mitsui Chemicals Agro, Inc., Tokyo (JP)**

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This patent is subject to a terminal disclaimer.

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None

See application file for complete search history.

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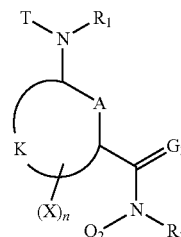
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Primary Examiner — Zinna Northington Davis(74) *Attorney, Agent, or Firm* — Rankin, Hill & Clark LLP(57) **ABSTRACT**

A pest control agent containing a compound represented by the following Formula (1), wherein A represents a carbon atom, a nitrogen atom, or the like, K represents a non-metal atom group necessary for forming a cyclic linking group derived from a 5- or 6-membered aromatic ring, in combination with A and two carbon atoms to which A bonds, X represents a hydrogen atom, a halogen atom, or the like, n represents an integer of from 0 to 4, T represents —C(=G₁)-Q₁ (wherein G₁ and G₂ represent an oxygen atom or the like, Q₁ represents a phenyl group which may have a substituent, a heterocyclic group which may have a substituent, or the like), or the like, Q₂ represents a phenyl group or the like, G₃ represents an oxygen atom or the like, and R₁ and R₂ each independently represent a hydrogen atom, a C1-C6 alkyl group, or a group represented by -L-D, or the like (provided that at least either R₁ or R₂ represents a group represented by -L-D); as an active ingredient exhibits an excellent effect.



Formula (1)

3 Claims, No Drawings

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**AMIDE DERIVATIVE, PEST CONTROL
AGENT CONTAINING THE AMIDE
DERIVATIVE, AND PEST CONTROLLING
METHOD**

CONTINUING DATA

This application is a divisional of 13/056,895 filed Jan. 31, 2011 now U.S. Pat. No. 8,633,228 which is a 371 of PCT/JP2009/061864 filed Jun. 29, 2009.

TECHNICAL FIELD

The present invention relates to an amide derivative, a pest control agent containing the amide derivative, and a pest controlling method.

BACKGROUND ART

Various amide derivatives are described in the pamphlets of International Publication WO 2005/21488, International Publication WO 2005/73165, International Publication WO 2006/137376, and International Publication WO 2006/137395.

DISCLOSURE OF INVENTION

Problems to be Solved by the Invention

In the production of, for example, agricultural and horticultural crops, due to causes such as currently-occurring large scale damage due to pests or the like, and the propagation of pests having resistance to existing chemicals, it is desirable to develop a novel agricultural/horticultural pesticide. Furthermore, there is a demand for various labor-saving methods due to increases in the age of farmers, and the like, and there is also a demand for creation of an agricultural/horticultural pesticide having characteristics suitable for such application methods.

It is an object of the present invention to provide an amide derivative exhibiting a pesticidal effect against various agricultural pests, having an effect of protection of useful crops, and greatly contributing to reduction in an environmental impact owing to the use at a low dose, a pest control agent containing the amide derivative, and a pest controlling method.

Means for Solving the Problems

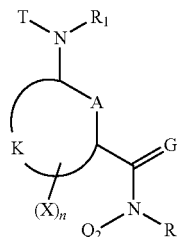
The present inventors have conducted intensive studies to develop a novel agricultural/horticultural pesticide, and as a result, have found that the amide derivative represented by the Formula (1) according to the present invention is a novel compound unknown in the literature, and it is also a pesticide exhibiting an excellent pesticidal effect by exhibiting a high uptake and migration action from a plant root, and also exhibiting an excellent pesticidal effect by a spray treatment to stems, leaves and the like, thereby completing the present invention.

Furthermore, the present inventors have found a novel method for producing and a useful intermediate for producing the amide derivative according to the present invention, and as a result, they have completed the present invention.

That is, the present invention is as follows.

<1> An amide derivative represented by the following Formula (1):

Formula (1)



Wherein, A represents a carbon atom, an oxygen atom, a nitrogen atom, an oxidized nitrogen atom, or a sulfur atom.

K represents a non-metal atom group necessary for forming a cyclic linking group derived from benzene, pyridine, pyridine-N-oxide, pyrimidine, pyrazine, pyridazine, triazine, pyrrole, pyrazole, imidazole, oxazole, isoxazole, thiazole, isothiazole, furan, thiophene, oxadiazole, thiodiazole, or triazole, in combination with A and two carbon atoms to which A bonds.

X represents a hydrogen atom, a halogen atom, a C1-C6 alkyl group which may have a substituent, a C1-C6 haloalkyl group which may have a substituent, a C3-C9 cycloalkyl group which may have a substituent, a C3-C9 halocycloalkyl group which may have a substituent, a C2-C6 alkenyl group which may have a substituent, a C2-C6 haloalkenyl group which may have a substituent, a C2-C6 alkynyl group which may have a substituent, a C2-C6 haloalkynyl group which may have a substituent, a C1-C6 alkoxy group which may have a substituent, a C1-C6 haloalkoxy group which may have a substituent, a C1-C6 alkylthio group which may have a substituent, a C1-C6 haloalkylthio group which may have a substituent, a C1-C6 alkylsulfinyl group which may have a substituent, a C1-C6 haloalkylsulfinyl group which may have a substituent, a C1-C6 alkylsulfonyl group which may have a substituent, a C1-C6 haloalkylsulfonyl group which may have a substituent, a C1-C6 alkylsulfonyloxy group which may have a substituent, a C1-C6 haloalkylsulfonyloxy group which may have a substituent, a C2-C7 alkylcarbonyl group which may have a substituent, a C2-C7 haloalkylcarbonyl group which may have a substituent, a C2-C7 alkylcarbonyloxy group which may have a substituent, a C2-C7 haloalkylcarbonyloxy group which may have a substituent, an arylcarbonyloxy group which may have a substituent, a C2-C7 alkoxy carbonyl group which may have a substituent, a C2-C7 haloalkoxy carbonyl group which may have a substituent, a C2-C7 alkylcarbonylamino group which may have a substituent, a C2-C7 haloalkylcarbonylamino group which may have a substituent, a C2-C7 alkoxy carbonylamino group which may have a substituent, a C2-C7 haloalkoxy carbonylamino group which may have a substituent, an arylcarbonylamino group which may have a substituent, an amino group, a carbamoyl group which may have a substituent, a cyano group, a nitro group, a hydroxy group, a pentafluorosulfanyl group, a C1-C6 alkylamino group which may have a substituent, a C1-C6 haloalkylamino group which may have a substituent, a C2-C6 alkenylamino group which may have a substituent, a C2-C6 haloalkenylamino group which may have a substituent, a C2-C6 alkynylamino group which may have a substituent, a C2-C6 haloalkynylamino group which may have a substituent, a C3-C9 cycloalkylamino group which may have a substituent, a C3-C9 halocycloalkylamino group which may have a substituent, a

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C2-C7 alkylaminocarbonyl group which may have a substituent, a C2-C7 haloalkylaminocarbonyl group which may have a substituent, a C3-C7 alkenylaminocarbonyl group which may have a substituent, a C3-C7 haloalkenylaminocarbonyl group which may have a substituent, a C3-C7 alkynylaminocarbonyl group which may have a substituent, a C3-C7 haloalkynylaminocarbonyl group which may have a substituent, a C4-C10 cycloalkylaminocarbonyl group which may have a substituent, a C4-C10 halocycloalkylaminocarbonyl group which may have a substituent, a phenyl group which may have a substituent, or a heterocyclic group which may have a substituent, and when there are plural X's, each X may be the same as or different from each other.

The heterocyclic group in X represents a pyridyl group, a pyridine-N-oxide group, a pyrimidinyl group, a pyrazinyl group, a pyridazyl group, a furyl group, a thienyl group, an oxazolyl group, an isoxazolyl group, an oxadiazolyl group, a thiazolyl group, an isothiazolyl group, a thiadiazolyl group, a pyrrolyl group, an imidazolyl group, a triazolyl group, a pyrazolyl group, or a tetrazolyl group.

n represents an integer of from 0 to 4.

T represents $-C(=G_1)-Q_1$ or $-C(=G_1)-G_2Q_3$,

wherein G_1 and G_2 each independently represent an oxygen atom or a sulfur atom,

Q_1 and Q_3 each independently represent a hydrogen atom, a C1-C6 alkyl group which may have a substituent, a C1-C6 haloalkyl group which may have a substituent, a C2-C6 alkenyl group which may have a substituent, a C2-C6 haloalkenyl group which may have a substituent, a C2-C6 alkynyl group which may have a substituent, a C2-C6 haloalkynyl group which may have a substituent, a C3-C9 cycloalkyl group which may have a substituent, a C3-C9 halocycloalkyl group which may have a substituent, a benzyl group which may have a substituent, a phenyl group which may have a substituent, a naphthyl group which may have a substituent, or a heterocyclic group which may have a substituent.

Q_2 represents a phenyl group which may have a substituent, a naphthyl group which may have a substituent, a heterocyclic group which may have a substituent, or a tetrahydronaphthalene group which may have a substituent.

Further, in Q_1 , Q_3 , and Q_2 , the substituent of a benzyl group which may have a substituent, a phenyl group which may have a substituent, a naphthyl group which may have a substituent, and a heterocyclic group which may have a substituent, and the substituent of a tetrahydronaphthalene group which may have a substituent represents one or more substituent selected from a group consisting of a halogen atom, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C3-C9 cycloalkyl group, a C3-C9 halocycloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a C2-C7 alkylcarbonyl group, a C2-C7 haloalkylcarbonyl group, a C2-C7 alkylcarbonyloxy group, a C2-C7 haloalkylcarbonyloxy group, a C1-C6 alkylsulfonyloxy group, a C1-C6 haloalkylsulfonyloxy group, a C2-C7 alkoxycarbonyl group, a C2-C7 haloalkoxycarbonyl group, a C2-C7 alkylcarbonylamino group, a C2-C7 haloalkylcarbonylamino group, a C2-C7 alkoxycarbonylamino group, a C2-C7 haloalkoxycarbonylamino group, a C1-C6 alkylamino group, a C1-C6 haloalkylamino group, an amino group, a carbamoyl group, a sulfamoyl group, a cyano group, a nitro group, a hydroxy group, a carboxy group, a pentafluorosulfanyl group, a benzyloxy group which may have a substituent, a benzyloxycarbonyl group which may have a substituent, a phenyl group which may have a substituent, a heterocyclic group which may have

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a substituent, a benzoyl group which may have a substituent, a phenylcarbonyl group which may have a substituent, and a phenylamino group which may have a substituent, and when there are two or more substituents, the substituents may be the same as or different from each other.

The heterocyclic group in Q_1 , Q_3 , and Q_2 has the same definition as the heterocyclic group in X.

G_3 represents an oxygen atom or a sulfur atom.

R_1 and R_2 each independently represent a hydrogen atom, a C1-C6 alkyl group which may have a substituent,

a C1-C6 haloalkyl group which may have a substituent, a C2-C6 alkenyl group which may have a substituent, a C2-C6 haloalkenyl group which may have a substituent, a C2-C6 alkynyl group which may have a substituent, a C2-C6 haloalkynyl group which may have a substituent, a C3-C9 cycloalkyl group which may have a substituent, a C3-C9 halocycloalkyl group which may have a substituent, a C1-C6 alkoxy group which may have a substituent, a C1-C6 haloalkoxy group which may have a substituent, a C2-C6 alkenyloxy group which may have a substituent, a C2-C6 haloalkenyloxy group which may have a substituent, a C2-C6 alkynyloxy group which may have a substituent, a C2-C6 haloalkynyloxy group which may have a substituent, a C3-C9 cycloalkoxy group which may have a substituent, a C3-C9 halocycloalkoxy group which may have a substituent, a C2-C7 alkylcarbonyl group which may have a substituent, a C2-C7 haloalkylcarbonyl group which may have a substituent, a C3-C7 alkenylcarbonyl group which may have a substituent, a C3-C7 haloalkenylcarbonyl group which may have a substituent, a C3-C7 alkynylcarbonyl group which may have a substituent, a C3-C7 haloalkynylcarbonyl group which may have a substituent, a C4-C10 cycloalkylcarbonyl group which may have a substituent, a C4-C10 halocycloalkylcarbonyl group which may have a substituent, a C2-C7 alkoxycarbonyl group which may have a substituent, a C2-C7 haloalkoxycarbonyl group which may have a substituent, a C3-C7 alkenyloxycarbonyl group which may have a substituent, a C3-C7 haloalkenyloxycarbonyl group which may have a substituent, a C3-C7 alkynyloxycarbonyl group which may have a substituent, a C3-C7 haloalkynyloxycarbonyl group which may have a substituent, a C4-C10 cycloalkyloxycarbonyl group which may have a substituent, a C4-C10 halocycloalkyloxycarbonyl group which may have a substituent, or a group represented by -L-D, wherein provided that at least either R_1 or R_2 represents a group represented by -L-D.

Wherein L represents

$-C(M_1)(M_2)-$,
 $-C(M_1)(M_2)-C(M_3)(M_4)-$,
 $-C(M_1)-C(M_3)-$, $-C\equiv C-$,
 $-C(M_1)(M_2)-C(M_3)(M_4)-C(M_5)(M_6)-$,
 $-C(M_1)=C(M_3)-C(M_5)(M_6)-$,
 $-C(M_1)(M_2)-C(M_3)=C(M_5)-$,
 $-C\equiv C-C(M_5)(M_6)-$, $-C(M_1)(M_2)-C\equiv C-$,
 $-C(M_1)(M_2)-C(M_3)(M_4)-C(M_5)(M_6)-C(M_7)(M_8)-$,
 $-C(M_1)-C(M_3)-C(M_5)(M_6)-C(M_7)(M_8)-$,
 $-C(M_1)(M_2)-C(M_3)=C(M_5)-C(M_7)(M_8)-$,
 $-C(M_1)(M_2)-C(M_3)(M_4)-C(M_5)=C(M_7)-$,
 $-C(M_1)-C(M_3)-C(M_5)=C(M_7)-$,
 $-C(M_1)=C(M_3)-C\equiv C-$,
 $-C\equiv C-C(M_5)(M_6)-C(M_7)(M_8)-$,
 $-C(M_1)(M_2)-C\equiv C-C(M_7)(M_8)-$,
 $-C(M_1)(M_2)-C(M_3)(M_4)-C\equiv C-$,
 $-C\equiv C-C(M_5)=C(M_7)-$, or
 $-C\equiv C-C\equiv C-$.

M_1 to M_8 each independently represent a hydrogen atom, a halogen atom, a cyano group, a nitro group, an amino group, a carboxy group, a hydroxy group, a carbamoyl group, a

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C1-C6 alkyl group which may have a substituent, a C1-C6 haloalkyl group which may have a substituent, a C2-C6 alkenyl group which may have a substituent, a C2-C6 haloalkenyl group which may have a substituent, a C2-C6 alkynyl group which may have a substituent, a C2-C6 haloalkynyl group which may have a substituent, a C2-C6 haloalkynyl group which may have a substituent, a C3-C9 cycloalkyl group which may have a substituent, a C3-C9 halocycloalkyl group which may have a substituent, a C1-C6 alkoxy group which may have a substituent, a C1-C6 haloalkoxy group which may have a substituent, a C2-C6 alkenyloxy group which may have a substituent, a C2-C6 haloalkenyloxy group which may have a substituent, a C2-C6 alkynyloxy group which may have a substituent, a C2-C6 haloalkynyloxy group which may have a substituent, a C3-C9 cycloalkoxy group which may have a substituent, a C3-C9 halocycloalkoxy group which may have a substituent, a C1-C6 alkylthio group which may have a substituent, a C1-C6 haloalkylthio group which may have a substituent, a C2-C6 alkenylthio group which may have a substituent, a C2-C6 haloalkenylthio group which may have a substituent, a C2-C6 alkynylthio group which may have a substituent, a C2-C6 haloalkynylthio group which may have a substituent, a C1-C6 alkylsulfinyl group which may have a substituent, a C1-C6 haloalkylsulfinyl group which may have a substituent, a C2-C6 alkenylsulfinyl group which may have a substituent, a C2-C6 haloalkenylsulfinyl group which may have a substituent, a C2-C6 alkynylsulfinyl group which may have a substituent, a C2-C6 haloalkynylsulfinyl group which may have a substituent, a C3-C9 cycloalkylsulfinyl group which may have a substituent, a C3-C9 halocycloalkylsulfinyl group which may have a substituent, a C1-C6 alkylsulfonyl group which may have a substituent, a C1-C6 haloalkylsulfonyl group which may have a substituent, a C2-C6 alkenylsulfonyl group which may have a substituent, a C2-C6 haloalkenylsulfonyl group which may have a substituent, a C2-C6 alkynylsulfonyl group which may have a substituent, a C2-C6 haloalkynylsulfonyl group which may have a substituent, a C3-C9 cycloalkylsulfonyl group which may have a substituent, a C3-C9 halocycloalkylsulfonyl group which may have a substituent, a C2-C7 alkylcarbonyl group which may have a substituent, a C2-C7 haloalkylcarbonyl group which may have a substituent, a C3-C7 alkenylcarbonyl group which may have a substituent, a C3-C7 haloalkenylcarbonyl group which may have a substituent, a C3-C7 alkynylcarbonyl group which may have a substituent, a C3-C7 haloalkynylcarbonyl group which may have a substituent, a C4-C10 cycloalkylcarbonyl group which may have a substituent, a C4-C10 halocycloalkylcarbonyl group which may have a substituent, a C2-C7 alkoxycarbonyl group which may have a substituent, a C2-C7 haloalkoxycarbonyl group which may have a substituent, a C3-C7 alkenyloxycarbonyl group which may have a substituent, a C3-C7 haloalkenyloxycarbonyl group which may have a substituent, a C3-C7 alkynyloxycarbonyl group which may have a substituent, a C3-C7 haloalkynyloxycarbonyl group which may have a substituent, a C4-C10 cycloalkyloxycarbonyl group which may have a substituent, a C4-C10 halocycloalkyloxycarbonyl group which may have a substituent, a C1-C6 alkylamino group which may have a substituent, a C1-C6 haloalkylamino group which may have a substituent, a C2-C6 alkenylamino group which may have a substituent, a C2-C6 haloalkenylamino group which may have a substituent, a C2-C6 alkynylamino group which may have a substituent, a C2-C6 haloalkynylamino group which may have a substituent, a C3-C9 cycloalkylamino group which may have a substituent, a C3-C9 halocycloalkylamino group which may have a substituent, a C2-C7 alkylaminocarbonyl group which may have a substituent, a C2-C7 haloalkylaminocarbonyl

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group which may have a substituent, a C3-C7 alkenylaminocarbonyl group which may have a substituent, a C3-C7 haloalkenylaminocarbonyl group which may have a substituent, a C3-C7 alkynylaminocarbonyl group which may have a substituent, a C3-C7 haloalkynylaminocarbonyl group which may have a substituent, a C4-C10 cycloalkylaminocarbonyl group which may have a substituent, a C4-C10 halocycloalkylaminocarbonyl group which may have a substituent, a phenyl group which may have a substituent, a naphthyl group which may have a substituent, or a heterocyclic group which may have a substituent.

Further, in M_1 to M_8 , the substituent of a phenyl group which may have a substituent and a heterocyclic group which may have a substituent has the same definition as the substituent of a phenyl group which may have a substituent, a naphthyl group which may have a substituent, and a heterocyclic group which may have a substituent, in Q_1 , Q_3 , and Q_2 .

Moreover, the heterocyclic group in M_1 to M_8 has the same definition as the heterocyclic group in Q_1 , Q_3 , and Q_2 .

D represents $-C(=O)OU_1$, $-C(=O)U_2$, $-C(=O)NU_3U_4$, $-NU_5C(=O)U_6$, $-S-U_7$, $-S(=O)U_8$, $-S(=O)(=O)U_9$, $-S(=O)(=O)NU_{10}U_{11}$, $-OU_{12}$, $-NU_{13}U_{14}$, $-C(=NU_{15})U_{16}$, $-NU_{17}-C(=NU_{18})U_{19}$, or $-C\equiv N$.

U_1 to U_{19} each independently represent a hydrogen atom, a hydroxy group, an amino group, a cyano group, a nitro group, a C1-C6 alkyl group which may have a substituent, a C1-C6 haloalkyl group which may have a substituent, a C2-C6 alkenyl group which may have a substituent, a C2-C6 haloalkenyl group which may have a substituent, a C2-C6 alkynyl group which may have a substituent, a C2-C6 haloalkynyl group which may have a substituent, a C3-C9 cycloalkyl group which may have a substituent, a C3-C9 halocycloalkyl group which may have a substituent, a C2-C7 alkoxycarbonyl group which may have a substituent, a C2-C7 alkylcarbonyl group which may have a substituent, a C2-C7 haloalkylcarbonyl group which may have a substituent, a C1-C3 alkylamino group which may have a substituent, a C1-C3 haloalkylamino group which may have a substituent, a phenyl group which may have a substituent, a naphthyl group which may have a substituent, or a heterocyclic group which may have a substituent, U_3 and U_4 , U_5 and U_6 , U_{10} and U_{11} , U_{12} and U_{13} and U_{14} , U_{15} and U_{16} , and from U_{17} to U_{19} may be linked with each other to form a saturated heterocyclic group.

In a case where D represents $-OU_{12}$ and L represents a methylene group, U_{12} represents a hydrogen atom, a hydroxy group, an amino group, a cyano group, a nitro group, a C2-C6 alkyl group which may have a substituent, a C1-C6 haloalkyl group which may have a substituent, a C2-C6 alkenyl group which may have a substituent, a C2-C6 haloalkenyl group which may have a substituent, a C2-C6 alkynyl group which may have a substituent, a C2-C6 haloalkynyl group which may have a substituent, a C3-C9 cycloalkyl group which may have a substituent, a C3-C9 halocycloalkyl group which may have a substituent, a C2-C7 alkoxycarbonyl group which may have a substituent, a C2-C7 haloalkoxycarbonyl group which may have a substituent, a C2-C7 alkylcarbonyl group which may have a substituent, a C1-C3 alkylamino group which may have a substituent, a C1-C3 haloalkylamino group which may have a substituent, a phenyl group which may have a substituent, a naphthyl group which may have a substituent, or a heterocyclic group which may have a substituent.

Further, in U_1 to U_{19} , the substituent of a phenyl group which may have a substituent and a heterocyclic group which

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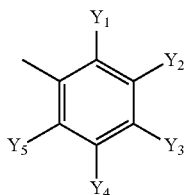
may have a substituent have the same definition as the substituent of a phenyl group which may have a substituent, a naphthyl group which may have a substituent, and a heterocyclic group which may have a substituent, in Q_1 , Q_3 and Q_2 .

Moreover, the heterocyclic group in U_1 to U_{19} have the same definition as the heterocyclic group in Q_1 , Q_3 and Q_2 .

<2> The amide derivative according to <1>, wherein in the Formula (1),

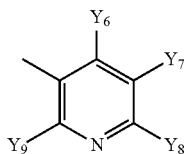
A represents a carbon atom, a nitrogen atom, an oxidized nitrogen atom, or a sulfur atom,

K represents a non-metal atom group necessary for forming a cyclic linking group derived from benzene, pyridine, pyridine-N-oxide, pyrrole, furan, thiophene, or thiazole, in combination with A and two carbon atoms to which A bonds, X represents a hydrogen atom, a halogen atom, a nitro group, or a cyano group, n represents an integer of from 1 to 4, T represents $-C(=G_1)-Q_1$ (wherein G_1 represents an oxygen atom, Q_1 represents a phenyl group which may have a substituent, a naphthyl group which may have a substituent, or a heterocyclic group which may have a substituent), and Q_2 is represented by the following Formula (2) or the following Formula (3):



Formula (2)

Wherein Y_1 and Y_5 each independently represent a halogen atom, a C1-C4 alkyl group, a C1-C4 haloalkyl group, a C1-C4 alkoxy group, a C1-C4 haloalkoxy group, a C1-C4 alkylthio group, a C1-C4 haloalkylthio group, a C1-C4 alkylsulfinyl group, a C1-C4 haloalkylsulfinyl group, a C1-C4 alkylsulfonyl group, a C1-C4 haloalkylsulfonyl group, or a cyano group, Y_3 represents a C1-C6 haloalkyl group, a C1-C6 haloalkoxy group, a C1-C6 haloalkylthio group, a C1-C6 haloalkylsulfinyl group, or a C1-C6 haloalkylsulfonyl group, Y_2 and Y_4 each independently represent a hydrogen atom, a halogen atom, or a C1-C4 alkyl group.



Formula (3)

Wherein Y_6 and Y_9 each independently represent a halogen atom, a C1-C4 alkyl group, a C1-C4 haloalkyl group, a C1-C4 alkoxy group, a C1-C4 haloalkoxy group, a C1-C4 alkylthio group, a C1-C4 haloalkylthio group, a C1-C4 alkylsulfinyl group, a C1-C4 haloalkylsulfinyl group, a C1-C4 alkylsulfonyl group, a C1-C4 haloalkylsulfonyl group, or a cyano group, Y_8 represents a C1-C6 haloalkyl group, a C1-C6 haloalkoxy group, a C1-C6 haloalkylthio group, a C1-C6 haloalkylsulfinyl group, or a C1-C6 haloalkylsulfonyl group, and Y_7 represents a hydrogen atom, a halogen atom, or a C1-C4 alkyl group.

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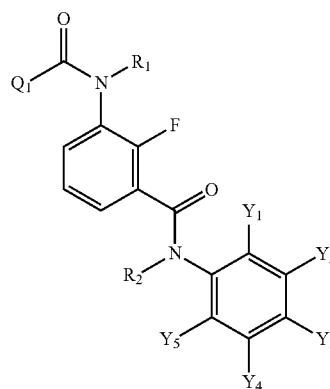
<3> The amide derivative according to <2>, wherein in the Formula (1), A represents a carbon atom, a nitrogen atom, an oxidized nitrogen atom, or a sulfur atom, K represents a non-metal atom group necessary for forming a cyclic linking group derived from benzene, pyridine, pyridine-N-oxide, or thiazole, in combination with A and two carbon atoms to which A bonds.

<4> The amide derivative according to <3>, wherein in the Formula (1), R_1 and R_2 each independently represent a hydrogen atom, a C1-C4 alkyl group which may have a substituent, or a group represented by -L-D, wherein any one of R_1 and R_2 represents a group represented by -L-D, wherein L representing $-C(M_1)(M_2)-$, $-C(M_1)(M_2)-C(M_3)(M_4)-$, or $-C(M_1)(M_2)-C(M_3)(M_4)-C(M_5)(M_6)-$, M_1 to M_6 representing a hydrogen atom, a halogen atom, a cyano group, a carboxy group, a hydroxy group, a carbamoyl group, a C1-C4 alkyl group which may have a substituent, a C1-C4 haloalkyl group which may have a substituent, a C2-C4 alkenyl group which may have a substituent, a C2-C4 haloalkenyl group which may have a substituent, a C2-C4 alkynyl group which may have a substituent, a C2-C4 haloalkynyl group which may have a substituent, a C3-C9 cycloalkyl group which may have a substituent, or a C3-C9 halocycloalkyl group which may have a substituent, and D representing $-C(=O)NU_3U_4$, $-S-U_7$, $-S(=O)U_8$, $-S(=O)(=O)U_9$, $-S(=O)(=O)NU_{10}U_{11}$, or $-C\equiv N$.

<5> The amide derivative according to <4>, wherein in the Formula (1), R_1 represents a group represented by -L-D, R_2 represents a hydrogen atom or a C1-C4 alkyl group which may have a substituent.

D represents $-C(=O)NU_3U_4$, $-S(=O)U_8$, $-S(=O)(=O)U_9$, or $-S(=O)(=O)NU_{10}U_{11}$, and U_3 , U_4 , U_8 , U_9 , U_{10} , and U_{11} each independently represent a hydrogen atom, a hydroxy group, a C1-C4 alkyl group which may have a substituent, a C1-C4 haloalkyl group which may have a substituent, a C2-C4 alkenyl group which may have a substituent, a C2-C4 haloalkenyl group which may have a substituent, a C2-C4 alkynyl group which may have a substituent, a C2-C4 haloalkynyl group which may have a substituent, a C3-C9 cycloalkyl group which may have a substituent, a C3-C9 halocycloalkyl group which may have a substituent, a C2-C7 alkoxy carbonyl group which may have a substituent, or a C2-C7 haloalkoxy carbonyl group which may have a substituent.

<6> The amide derivative according to <5>, wherein the compound represented by the Formula (1) is represented by the following Formula (4a):



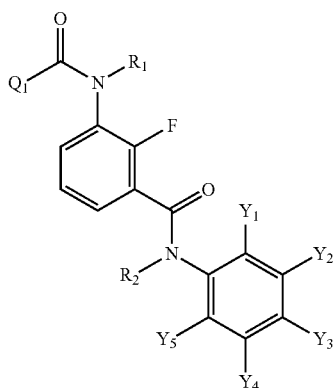
Formula (4a)

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Wherein, in the Formula (4a), Q_1 represents a phenyl group which may have a substituent, or a heterocyclic group which may have a substituent, Y_1 and Y_5 each independently represent a halogen atom or a C1-C3 haloalkyl group, Y_2 and Y_4 represent a hydrogen atom, and Y_3 represents a C3-C4 perfluoroalkyl group. R_1 and R_2 have the same definitions as R_1 and R_2 , respectively, in the Formula (1).

<7> The amide derivative according to <5>, wherein D in the Formula (1) represents $-C(=O)NU_3U_4$ or $-S(=O)(=O)NU_{10}U_{11}$.

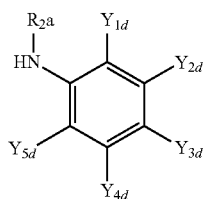
<8> The amide derivative according to <7>, wherein the compound represented by the Formula (1) is represented by the following Formula (4b):



Formula (4b)

Wherein, in the Formula (4b), Q_1 represents a phenyl group which may have a substituent, or a heterocyclic group which may have a substituent, Y_1 and Y_5 each independently represent a halogen atom or a C1-C3 haloalkyl group, Y_2 and Y_4 represent a hydrogen atom, and Y_3 represents a C3-C4 perfluoroalkyl group. R_1 and R_2 have the same definitions as R_1 and R_2 , respectively, in the Formula (1).

<9> An aniline derivative represented by the following Formula (6d):



Formula (6d)

wherein Y_{5d} represents a C1-C3 haloalkyl group. Y_{1d} represents a hydrogen atom, a halogen atom, a C1-C4 alkyl group, a C1-C4 haloalkyl group, a C1-C4 alkoxy group, a C1-C4 haloalkoxy group, a C1-C4 alkylthio group, a C1-C4 haloalkylthio group, a C1-C4 alkylsulfinyl group, a C1-C4 haloalkylsulfinyl group, a C1-C4 alkylsulfonyl group, a C1-C4 haloalkylsulfonyl group, or a cyano group.

Y_{3d} represents a C1-C6 haloalkyl group, a C1-C6 haloalkoxy group, a C1-C6 haloalkylthio group, a C1-C6 haloalkylsulfinyl group, or a C1-C6 haloalkylsulfonyl group.

Y_{2d} and Y_{4d} each independently represent a hydrogen atom, a halogen atom, or a C1-C4 alkyl group.

R_{2a} represents a hydrogen atom, an oxygen atom, a halogen atom, a hydroxy group, a nitro group, a nitroso group, a

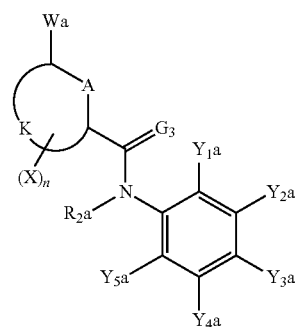
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trimethylsilyl group, a t-butyl dimethylsilyl group, a cyano group, an amino group, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C2-C6 alkenyl group, a C2-C6 haloalkenyl group, a C2-C6 alkynyl group, a C2-C6 haloalkynyl group, a C3-C9 cycloalkyl group, a C3-C9 halocycloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C2-C6 alkenyloxy group, a C2-C6 haloalkenyloxy group, a C2-C6 alkynyloxy group, a C2-C6 haloalkynyloxy group, a C3-C9 cycloalkoxy group, a C3-C9 halocycloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a benzenesulfonyl group, a benzylsulfonyl group, a C2-C7 alkylcarbonyl group, a C2-C7 haloalkylcarbonyl group, a C3-C7 alkenylcarbonyl group, a C3-C7 haloalkenylcarbonyl group, a C3-C7 alkynylcarbonyl group, a C3-C7 haloalkynylcarbonyl group, a C4-C10 cycloalkylcarbonyl group, a C4-C10 halocycloalkylcarbonyl group, a C2-C7 alkoxy carbonyl group, a C2-C7 haloalkoxy carbonyl group, a C3-C7 alkenyloxy carbonyl group, a C3-C7 haloalkenyloxy carbonyl group, a C3-C7 alkynyloxy carbonyl group, a C3-C7 haloalkynyloxy carbonyl group, a phenoxycarbonyl group, a C2-C7 alkylaminocarbonyl group, a C2-C7 haloalkylaminocarbonyl group, a C2-C7 alkylcarbonyloxy group, a C2-C7 haloalkylcarbonyloxy group, a C4-C10 cycloalkyloxy carbonyl group, a C4-C10 halocycloalkyloxy carbonyl group, a benzoyl group, a benzyl group, $-C(=O)C(=O)R_7$, wherein R_7 represents a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C1-C6 alkoxy group, or a C1-C6 haloalkoxy group, or a group represented by -L-D, wherein L and D have the same definition as L and D respectively, in R_2 .

<10> The amide derivative according to <9>, wherein in Formula (6d) according to <9>, Y_{1d} represents a halogen atom.

<11> A method for producing the amide derivative according to <10>, including a compound represented by Formula (6d) according to <9>, in which Y_{1d} represents halogen atom reacting with a halogenating agent.

<12> An amide derivative represented by the following Formula (6a):



Formula (6a)

Wherein A, K, X, n, and G_3 have the same definitions as A, K, X, n, and G_3 , respectively, in the Formula (1).

R_{2a} has the same definition as R_{2a} in the Formula (6d).

W_a represents a nitro group, an amino group, or $-NH-$.

R_{1a} represents an oxygen atom, a halogen atom, a hydroxy group, a nitro group, a nitroso group, a trimethylsilyl group, a t-butyl dimethylsilyl group, a cyano group, an amino group, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C2-C6 alkenyl group, a C2-C6 haloalkenyl group, a C2-C6 alkynyl

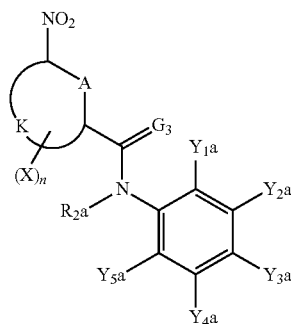
group, a C2-C6 haloalkynyl group, a C3-C9 cycloalkyl group, a C3-C9 halocycloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C2-C6 alkenyloxy group, a C2-C6 haloalkenyloxy group, a C2-C6 alkynyloxy group, a C2-C6 haloalkynyloxy group, a C3-C9 cycloalkoxy group, a C3-C9 halocycloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a benzenesulfonyl group, a benzylsulfonyl group, a C2-C7 alkylaminocarbonyl group, a C2-C7 haloalkylaminocarbonyl group, a C2-C7 alkylcarbo-
nyloxy group, a C2-C7 haloalkylcarbo-nyloxy group, a benzyl group, $-\text{C}(=\text{O})\text{C}(=\text{O})\text{R}_7$, wherein R_7 represents a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C1-C6 alkoxy group, or a C1-C6 haloalkoxy group, or a group represented by -L-D, wherein L and D have the same definitions as L and D, respectively, in R_2 .

Y_{1a} and Y_{5a} each independently represent a halogen atom, a C1-C6 haloalkoxy group, or a C1-C3 haloalkyl group.

In a case where K is combined with A and two carbon atoms to which A bonds to form a benzene ring, X's are all hydrogen atoms, R_{2a} is a hydrogen atom, and Y_{3a} is a C3 perfluoroalkyl group, Y_{5a} is a C1-C3 haloalkyl group. Further, in a case where K is combined with A and two carbon atoms to which A bonds to form a benzene ring, and X is a cyano group, Y_{5a} is a C1-C6 haloalkoxy group or a C1-C3 haloalkyl group.

Y_{2a} and Y_{4a} each independently represent a hydrogen atom, a halogen atom, or a C1-C4 alkyl group, and Y_{3a} represents a C2-C5 haloalkyl group.

<13> The amide derivative according to <12>, wherein the compound represented by the Formula (6a) is represented by the following Formula (41):

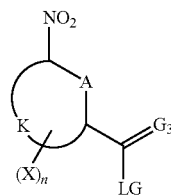


Formula (41)

Wherein A, K, X, n, G_3 , R_{2a} , Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} have the same definitions as A, K, X, n, G_3 , R_{2a} , Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} , respectively, in the Formula (6a).

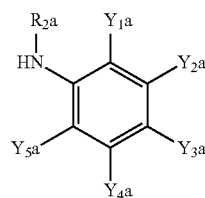
<14> A method for producing the amide derivative according to <13>, including reacting a compound represented by the following Formula (40) with a compound represented by the following Formula (6f):

Formula (40)



Wherein LG represents a functional group having a leaving ability, such as a halogen atom, a hydroxy group, and the like, and A, K, X, n, and G_3 have the same definitions as A, K, X, n, and G_3 , respectively, in the Formula (1).

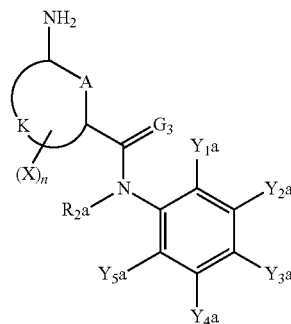
Formula (6f)



Wherein R_{2a} , Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} have the same definitions as R_{2a} , Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} , respectively, in the Formula (6a).

<15> The amide derivative according to <12>, wherein the compound represented by the Formula (6a) is represented by the following Formula (42):

Formula (42)

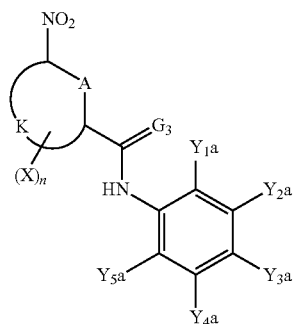


Wherein A, K, X, n, G_3 , R_{2a} , Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} have the same definitions as A, K, X, n, G_3 , R_{2a} , Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} , respectively, in the Formula (6a).

<16> A method for producing the amide derivative represented by the Formula (42) according to <15>, including reacting a compound represented by the Formula (41) according to <13> in the presence of a reducing agent.

<17> A method for producing the amide derivative represented by the following Formula (41c), including reacting a compound represented by the following Formula (43) with a compound represented by the following Formula (49a):

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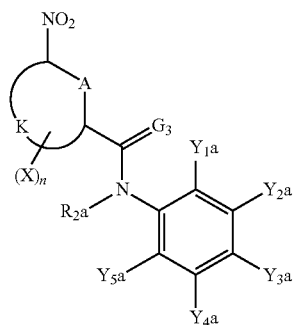


Wherein A, K, X, n, G₃, Y_{1a}, Y_{2a}, Y_{3a}, Y_{4a}, and Y_{5a} have the same definitions as A, K, X, n, G₃, Y_{1a}, Y_{2a}, Y_{3a}, Y_{4a}, and Y_{5a}, respectively, in the Formula (6a).

R_{2a}-LG

Formula (49a)

Wherein LG represents a functional group having a leaving ability, such as a halogen atom, a hydroxy group, or the like, and R_{2a} represents a trimethylsilyl group, a t-butyldimethylsilyl group, a cyano group, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C2-C6 alkenyl group, a C2-C6 haloalkenyl group, a C2-C6 alkynyl group, a C2-C6 haloalkynyl group, a C3-C9 cycloalkyl group, a C3-C9 halocycloalkyl group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a benzenesulfonyl group, a benzylsulfonyl group, a C2-C7 alkylcarbonyl group, a C2-C7 haloalkylcarbonyl group, a C3-C7 alkenylcarbonyl group, a C3-C7 haloalkenylcarbonyl group, a C3-C7 alkynylcarbonyl group, a C3-C7 haloalkynylcarbonyl group, a C4-C10 cycloalkylcarbonyl group, a C4-C10 halocycloalkylcarbonyl group, a C2-C7 alkoxy carbonyl group, a C2-C7 haloalkoxy carbonyl group, a C3-C7 alkenyloxy carbonyl group, a C3-C7 haloalkenyloxy carbonyl group, a C3-C7 alkynyloxy carbonyl group, a C3-C7 haloalkynyloxy carbonyl group, a phenoxycarbonyl group, a C2-C7 alkylaminocarbonyl group, a C2-C7 haloalkylaminocarbonyl group, a C4-C10 cycloalkyloxy carbonyl group, a C4-C10 halocycloalkyloxy carbonyl group, a benzoyl group, a benzyl group, —C(=O)C(=O)R₇, wherein R₇ represents a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C1-C6 alkoxy group, or a C1-C6 haloalkoxy group, or a group represented by -L-D, wherein L and D have the same definitions as L and D, respectively, in R₂.

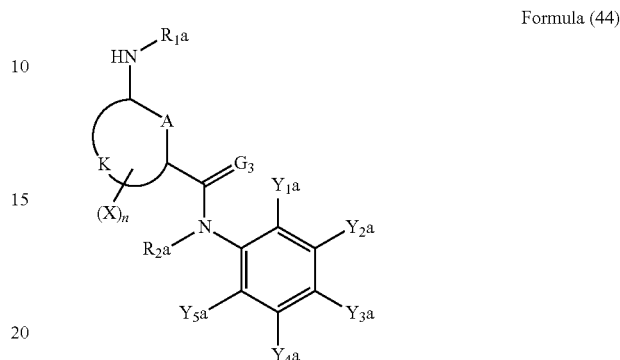


Wherein R_{2a} has the same definition as R_{2a} in the Formula (49a), and A, K, X, n, G₃, Y_{1a}, Y_{2a}, Y_{3a}, Y_{4a}, and Y_{5a} have the

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same definitions as A, K, X, n, G₃, Y_{1a}, Y_{2a}, Y_{3a}, Y_{4a}, and Y_{5a}, respectively, in the Formula (6a).

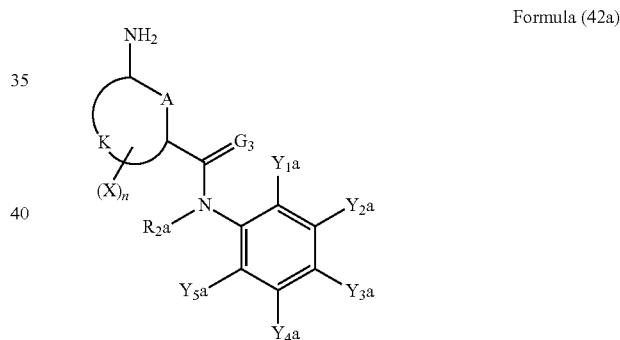
<18> The amide derivative according to <12>, wherein the compound represented by the Formula (6a) is represented by the following Formula (44):



Formula (44)

Wherein A, K, X, n, G₃, Y_{1a}, Y_{2a}, Y_{3a}, Y_{4a}, Y_{5a}, R_{1a}, and R_{2a} have the same definitions as A, K, X, n, G₃, Y_{1a}, Y_{2a}, Y_{3a}, Y_{4a}, Y_{5a}, R_{1a}, and R_{2a}, respectively, in the Formula (6a).

<19> A method for producing the amide derivative represented by the following Formula (44a), including reacting a compound represented by the following Formula (42a) with a compound represented by the following Formula (47a):



Formula (42a)

Wherein R_{2a} represents an oxygen atom, a halogen atom, a hydroxy group, a nitro group, a nitroso group, a trimethylsilyl group, a t-butyldimethylsilyl group, a cyano group, an amino group, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C2-C6 alkenyl group, a C2-C6 haloalkenyl group, a C2-C6 alkynyl group, a C2-C6 haloalkynyl group, a C3-C9 cycloalkyl group, a C3-C9 halocycloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C2-C6 alkenyloxy group, a C2-C6 haloalkenyloxy group, a C2-C6 alkynyloxy group, a C2-C6 haloalkynyloxy group, a C3-C9 cycloalkoxy group, a C3-C9 halocycloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a benzenesulfonyl group, a benzylsulfonyl group, a C2-C7 alkylcarbonyl group, a C2-C7 haloalkylcarbonyl group, a C3-C7 alkenylcarbonyl group, a C3-C7 haloalkenylcarbonyl group, a C3-C7 alkynylcarbonyl group, a C3-C7 haloalkynylcarbonyl group, a C4-C10 cycloalkylcarbonyl group, a C4-C10 halocycloalkylcarbonyl group, a C2-C7 alkoxy carbonyl group, a C2-C7 haloalkoxy carbonyl group, a C3-C7 alkenyloxy carbonyl group, a C3-C7 haloalkenyloxy carbonyl group, a C3-C7 alkynyloxy carbonyl group, a C3-C7 haloalkynyloxy carbonyl group, a phenoxycarbonyl group, a C2-C7 alkylaminocarbonyl group, a C2-C7 haloalkylaminocarbonyl group, a C4-C10 cycloalkyloxy carbonyl group, a C4-C10 halocycloalkyloxy carbonyl group, a benzoyl group, a benzyl group, —C(=O)C(=O)R₇, wherein R₇ represents a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C1-C6 alkoxy group, or a C1-C6 haloalkoxy group, or a group represented by -L-D, wherein L and D have the same definitions as L and D, respectively, in R₂.

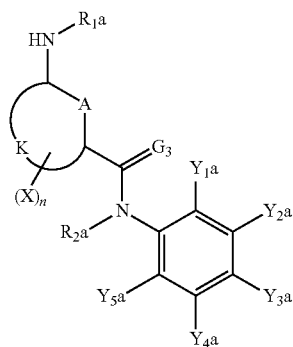
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loxy carbonyl group, a C3-C7 haloalkenyloxy carbonyl group, a C3-C7 alkynyloxy carbonyl group, a C3-C7 haloalkynyloxy carbonyl group, a phenoxycarbonyl group, a C2-C7 alkylaminocarbonyl group, a C2-C7 haloalkylaminocarbonyl group, a C2-C7 alkylcarbonyloxy group, a C2-C7 haloalkylcarbonyloxy group, a C4-C10 cycloalkyloxy carbonyl group, a C4-C10 halocycloalkyloxy carbonyl group, a benzoyl group, a benzyl group, $-C(=O)C(=O)R_7$ (wherein R_7 represents a C1-C6 alkyl group which may have a substituent, a C1-C6 haloalkyl group, or a C1-C6 alkoxy group or a C1-C6 haloalkoxy group which may have a substituent), or a group represented by -L-D (wherein L and D have the same definitions as L and D, respectively, in R_2), and A, K, X, n, G_3 , Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} have the same definitions as A, K, X, n, G_3 , Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} , respectively, in the Formula (6a).

 R_{1a} -LG

Formula (47a)

Wherein LG represents a functional group having a leaving ability, such as a halogen atom, a hydroxy group, or the like, and R_{1a} represents a trimethylsilyl group, a t-butyldimethylsilyl group, a cyano group, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C2-C6 alkenyl group, a C2-C6 haloalkenyl group, a C2-C6 alkynyl group, a C2-C6 haloalkynyl group, a C3-C9 cycloalkyl group, a C3-C9 halocycloalkyl group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a benzenesulfonyl group, a benzylsulfonyl group, a C2-C7 alkylaminocarbonyl group, a C2-C7 haloalkylaminocarbonyl group, a benzyl group, $-C(=O)C(=O)R_7$, wherein R_7 represents a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C1-C6 alkoxy group, or a C1-C6 haloalkoxy group, or a group represented by -L-D, wherein L and D have the same definitions as L and D, respectively, in R_2 .



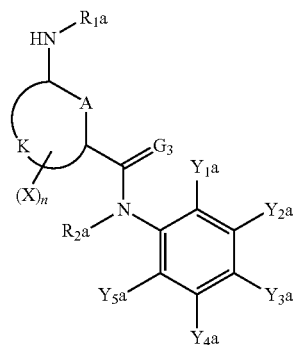
Formula (44a)

Wherein R_{1a} has the same definition as R_{1a} in the Formula (47a), R_{2a} has the same definition as R_{2a} in the Formula (42a), and A, K, X, n, G_3 , Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} have the same definitions as A, K, X, n, G_3 , Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} , respectively, in the Formula (6a).

<20> A method for producing the amide derivative represented by the following Formula (44c), including reacting the compound represented by the Formula (42) according to <15> with an aldehyde:

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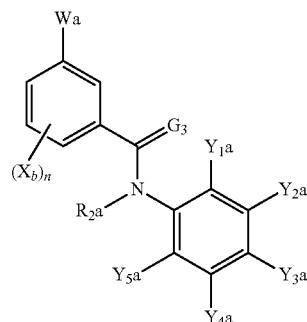
Formula (44c)



Wherein R_{1a} represents a C1-C6 alkyl group, a C1-C6 haloalkyl group, or a benzyl group, and A, K, X, n, G_3 , R_{2a} , Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} have the same definitions as A, K, X, n, G_3 , R_{2a} , Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} , respectively, in the Formula (6a).

<21> The amide derivative according to <12>, wherein the compound represented by the Formula (6a) is represented by the following Formula (6b):

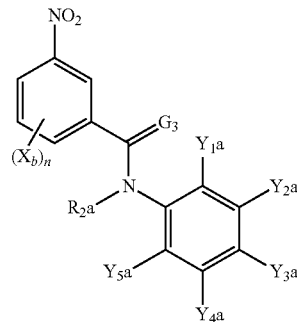
Formula (6b)



Wherein X_b represents a hydrogen atom, a halogen atom, a cyano group, or a nitro group, n is 4, and W_a , G_3 , R_{2a} , Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} have the same definitions as W_a , G_3 , R_{2a} , Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} , respectively, in the Formula (6a).

<22> The compound according to <21>, wherein the compound represented by the Formula (6b) is represented by the following Formula (41b):

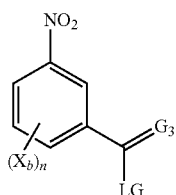
Formula (41b)



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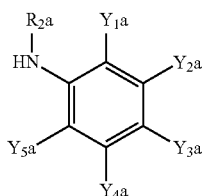
Wherein X_b , n , G_3 , R_{2a} , Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} have the same definitions as X_b , n , G_3 , R_{2a} , Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} , respectively, in the Formula (6b).

<23> A method for producing the amide derivative represented by the Formula (41b) according to <22>, including reacting a compound represented by the following Formula (40b) with the compound represented by the following Formula (60) according to <14>:



Formula (40b)

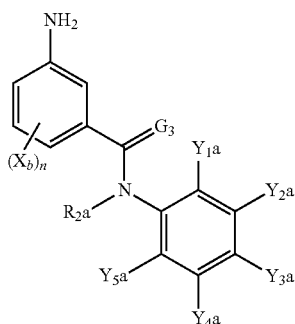
Wherein LG represents a functional group having a leaving ability, such as a halogen atom, a hydroxy group, and the like, and G_3 has the same definition as G_3 in the Formula (1). n and X_b have the same definitions as n and X_b , respectively, in the Formula (6b).



Formula (6f)

Wherein R_{2a} , Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} have the same definitions as R_{2a} , Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} , respectively, in the Formula (6a).

<24> The amide derivative according to <21>, wherein the compound represented by the Formula (6b) is represented by the following Formula (42b):



Formula (42b)

Wherein X_b , n , G_3 , R_{2a} , Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} have the same definitions as X_b , n , G_3 , R_{2a} , Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} , respectively, in the Formula (6b).

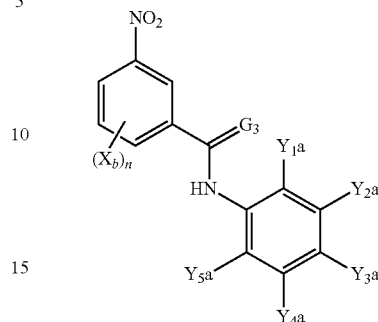
<25> The method for producing the amide derivative according to <24>, including reacting the compound represented by the Formula (41b) according to <22> in the presence of a reducing agent.

<26> A method for producing the following Formula (41d), including reacting a compound represented by the

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following Formula (43b) with a compound represented by the following Formula (49a) according to <17>:

Formula (43b)



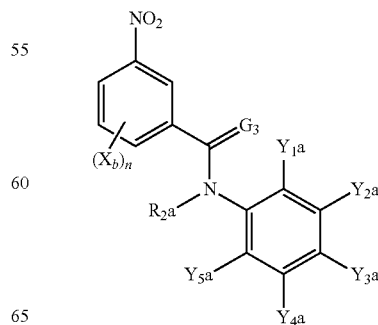
Wherein X_b , n , G_3 , Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} have the same definitions as X_b , n , G_3 , Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} , respectively, in the Formula (6b).

Formula (49a)

Formula (49a)

Wherein LG represents a functional group having a leaving ability, such as a halogen atom, a hydroxy group, or the like, and R_{2a} represents a trimethylsilyl group, a t-butyldimethylsilyl group, a cyano group, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C2-C6 alkenyl group, a C2-C6 haloalkenyl group, a C2-C6 alkynyl group, a C2-C6 haloalkynyl group, a C3-C9 cycloalkyl group, a C3-C9 halocycloalkyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a benzenesulfonyl group, a benzylsulfonyl group, a C2-C7 alkylcarbonyl group, a C2-C7 haloalkylcarbonyl group, a C3-C7 alkenylcarbonyl group, a C3-C7 haloalkenylcarbonyl group, a C3-C7 alkynylcarbonyl group, a C3-C7 haloalkynylcarbonyl group, a C4-C10 cycloalkylcarbonyl group, a C4-C10 halocycloalkylcarbonyl group, a C2-C7 alkoxy carbonyl group, a C2-C7 haloalkoxy carbonyl group, a C3-C7 alkenyloxy carbonyl group, a C3-C7 haloalkenyloxy carbonyl group, a C3-C7 alkynyloxy carbonyl group, a C3-C7 haloalkynyloxy carbonyl group, a phenoxycarbonyl group, a C2-C7 alkylaminocarbonyl group, a C2-C7 haloalkylaminocarbonyl group, a C4-C10 cycloalkyloxy carbonyl group, a C4-C10 halocycloalkyloxy carbonyl group, a benzoyl group, a benzyl group, $-C(=O)C(=O)R_7$, wherein R_7 represents a C1-C6 haloalkyl group, a C1-C6 haloalkoxy group, or a group represented by -L-D, wherein L and D have the same definitions as L and D, respectively, in R_2 .

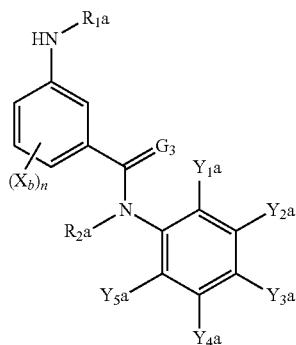
Formula (41d)



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Wherein R_{2a} has the same definition as R_{2a} in the Formula (49a), and $Xb, n, G_3, Y_{1a}, Y_{2a}, Y_{3a}, Y_{4a},$ and Y_{5a} have the same definitions as $Xb, n, G_3, Y_{1a}, Y_{2a}, Y_{3a}, Y_{4a},$ and $Y_{5a},$ respectively, in the Formula (6b).

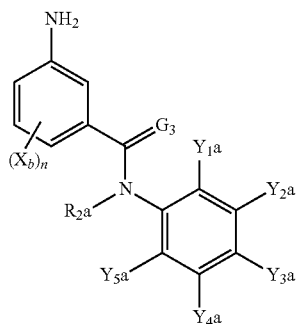
<27> The amide derivative according to <21>, wherein the compound represented by the Formula (6b) is represented by the following Formula (44b):



Formula (44b)

Wherein $Xb, n, G_3, Y_{1a}, Y_{2a}, Y_{3a}, Y_{4a}, Y_{5a}, R_{1a},$ and R_{2a} have the same definitions as $Xb, n, G_3, Y_{1a}, Y_{2a}, Y_{3a}, Y_{4a}, Y_{5a}, R_{1a},$ and $R_{2a},$ respectively, in the Formula (6b).

<28> A method for producing the amide derivative represented by the following Formula (44d) according to <27>, including reacting a compound represented by the following Formula (42c) with a compound represented by the following Formula (47a) according to <19>:



Formula (42c)

Wherein R_{2a} has the same definition as in the Formula (42a), and $Xb, n, G_3, Y_{1a}, Y_{2a}, Y_{3a}, Y_{4a},$ and Y_{5a} have the same definitions as $Xb, n, G_3, Y_{1a}, Y_{2a}, Y_{3a}, Y_{4a},$ and $Y_{5a},$ respectively, in the Formula (6b).

 $R_{1a}-LG$

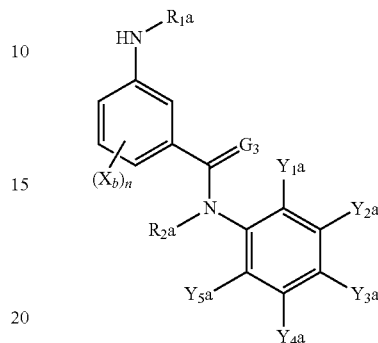
Formula (47a)

Wherein LG represents a functional group having a leaving ability, such as a halogen atom, a hydroxy group, or the like, and R_{1a} represents a trimethylsilyl group, a t-butyldimethylsilyl group, a cyano group, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C2-C6 alkenyl group, a C2-C6 haloalkenyl group, a C2-C6 alkynyl group, a C2-C6 haloalkynyl group, a C3-C9 cycloalkyl group, a C3-C9 halocycloalkyl group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a benzenesulfonyl group, a benzylsulfonyl group, a C2-C7 alkylaminocarbonyl group, a C2-C7 haloalkylaminocarbonyl group, a benzyl group, $-C(=O)C(=O)R_7$

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(wherein R_7 represents a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C1-C6 alkoxy group, or a C1-C6 haloalkoxy group), or a group represented by -L-D (wherein L and D have the same definitions as L and D, respectively, in R_2).

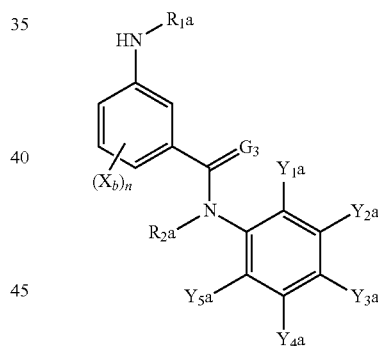
Formula (44d)



Wherein R_{1a} has the same definition as R_{1a} in the Formula (47a), R_{2a} has the same definition as R_{2a} in the Formula (42a), and $Xb, n, G_3, Y_{1a}, Y_{2a}, Y_{3a}, Y_{4a},$ and Y_{5a} have the same definitions as $Xb, n, G_3, Y_{1a}, Y_{2a}, Y_{3a}, Y_{4a},$ and $Y_{5a},$ respectively, in the Formula (6b).

<29> A method for producing the amide derivative represented by the following Formula (44e), including reacting a compound represented by the Formula (42b) according to <24> with an aldehyde:

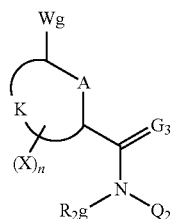
Formula (44e)



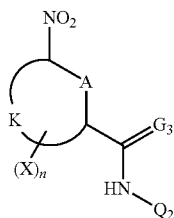
Wherein R_{1a} has the same definition as R_{1a} in the Formula (44c), and $R_{2a}, Xb, n, G_3, Y_{1a}, Y_{2a}, Y_{3a}, Y_{4a},$ and Y_{5a} have the same definitions as $R_{2a}, Xb, n, G_3, Y_{1a}, Y_{2a}, Y_{3a}, Y_{4a},$ and Y_{5a} in the Formula (6b).

<30> An amide derivative represented by the following Formula (6g):

Formula (6g)



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Formula (43g)

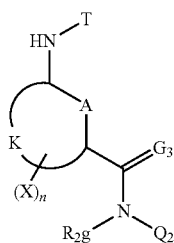
Wherein A, K, X, n, G₃, and Q₂ have the same definitions as A, K, X, n, G₃, and Q₂, respectively, in the Formula (1).

R_{2g}-LG

Formula (49g)

Wherein LG represents a functional group having a leaving ability, such as a halogen atom, a hydroxy group, or the like, R_{2g} has the same definition as R_{2g} in the Formula (6g).

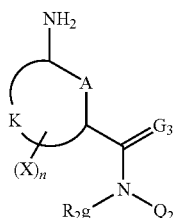
<38> The amide derivative according to <30>, wherein the compound represented by the Formula (6g) is represented by the following Formula (46g):



Formula (46g)

Wherein T, A, K, X, n, G₃, R_{2g}, and Q₂ have the same definitions as T, A, K, X, n, G₃, R_{2g}, and Q₂, respectively, in the Formula (6g).

<39> A method for producing the amide derivative represented by the Formula (46g) according to <38>, including reacting a compound represented by the following Formula (42g) according to <35> with a compound represented by the following Formula (45):



Formula (42g)

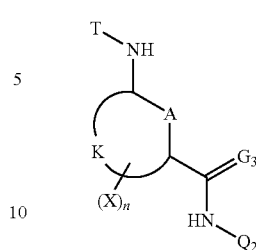
Wherein A, K, X, n, G₃, R_{2g}, and Q₂ have the same definitions as A, K, X, n, G₃, R_{2g}, and Q₂, respectively, in the Formula (6g).

T-LG

Formula (45)

Wherein LG represents a functional group having a leaving ability, such as a halogen atom, a hydroxy group, or the like, T has the same definition as T in the Formula (1).

<40> A method for producing the amide derivative represented by the following Formula (1g), including reacting a compound represented by the following Formula (50) with a compound represented by the following Formula (47g):



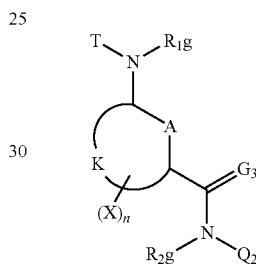
Formula (50)

Wherein T, A, K, X, n, G₃, and Q₂ have the same definitions as T, A, K, X, n, G₃, and Q₂, respectively, in the Formula (1).

R_{1g}-LG

Formula (47g)

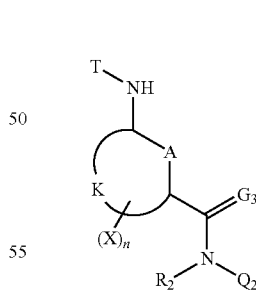
Wherein LG represents a functional group having a leaving ability, such as a halogen atom, a hydroxy group, or the like, and R_{1g} represents -L-D (wherein L and D have the same definitions as L and D in R₁, respectively, in the Formula (1).



Formula (1g)

Wherein R_{1g} has the same definition as R_{1g} in the Formula (47g), and T, A, K, X, n, G₃, and Q₂ have the same definitions as T, A, K, X, n, G₃, and Q₂, respectively, in the Formula (1).

<41> A method for producing the amide derivative represented by the Formula (1) according to <1>, including reacting a compound represented by the following Formula (52) with a compound represented by the following Formula (47):



Formula (52)

Wherein T, R₂, A, K, X, n, G₃, and Q₂ have the same definitions as T, R₂, A, K, X, n, G₃, and Q₂, respectively, in the Formula (1).

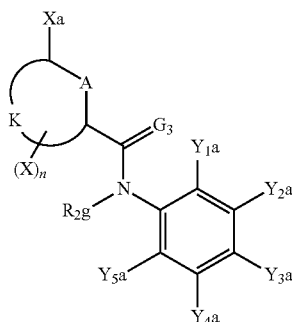
R₁-LG

Formula (47)

Wherein LG represents a functional group having a leaving ability, such as a halogen atom, a hydroxy group, or the like, and R₁ has the same definition as R₁ in the Formula (1).

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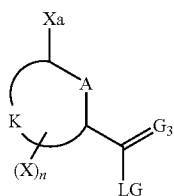
<42> An amide derivative represented by the following Formula (55a):



Formula (55a)

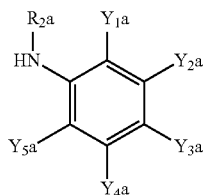
Wherein X_a represents a halogen atom. A, K, X, n, and G_3 have the same definitions as A, K, X, n, and G_3 , respectively, in the Formula (1), and R_{2a} , Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} have the same definitions as R_{2a} , Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} , respectively, in the Formula (6a).

<43> A method for producing the amide derivative represented by the Formula (55a) according to <42>, including reacting a compound represented by the following Formula (54) with a compound represented by the following Formula (6f) according to <14>:



Formula (54)

Wherein X_a represents a halogen atom, LG represents a functional group having a leaving ability, such as a halogen atom, a hydroxy group, and the like, and A, K, X, n, and G_3 have the same definitions as A, K, X, n, and G_3 , respectively, in the Formula (1).



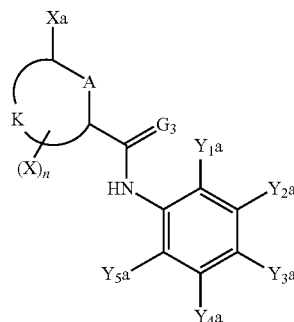
Formula (6f)

Wherein R_{2a} , Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} have the same definitions as R_{2a} , Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} , respectively, in the Formula (6a).

<44> A method for producing the amide derivative represented by the Formula (55b), including reacting a compound represented by the following Formula (56a) with a compound represented by the following Formula (49a) according to <17>:

26

Formula (56a)



10

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Wherein X_a represents a halogen atom. A, K, X, n, and G_3 have the same definitions as A, K, X, n, and G_3 , respectively, in the Formula (1), and Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} have the same definitions as Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} , respectively, in the Formula (6a).

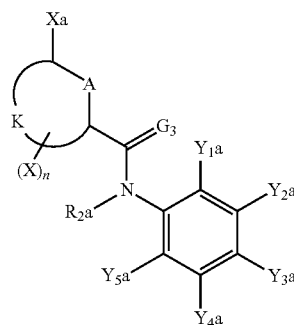
 R_{2a} -LG

Formula (49a)

Wherein LG represents a functional group having a leaving ability, such as a halogen atom, a hydroxy group, or the like, and R_{2a} represents a trimethylsilyl group, a t-butyldimethylsilyl group, a cyano group, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C2-C6 alkenyl group, a C2-C6 haloalkenyl group, a C2-C6 alkynyl group, a C2-C6 haloalkynyl group, a C3-C9 cycloalkyl group, a C3-C9 halocycloalkyl group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a benzenesulfonyl group, a benzylsulfonyl group, a C2-C7 alkylcarbonyl group, a C2-C7 haloalkylcarbonyl group, a C3-C7 alkenylcarbonyl group, a C3-C7 haloalkenylcarbonyl group, a C3-C7 alkynylcarbonyl group, a C3-C7 haloalkynylcarbonyl group, a C4-C10 cycloalkylcarbonyl group, a C4-C10 halocycloalkylcarbonyl group, a C2-C7 alkoxy carbonyl group, a C2-C7 haloalkoxy carbonyl group, a C3-C7 alkenyloxy carbonyl group, a C3-C7 haloalkenyloxy carbonyl group, a C3-C7 alkynyloxy carbonyl group, a C3-C7 haloalkynyloxy carbonyl group, a phenoxycarbonyl group, a C2-C7 alkylaminocarbonyl group, a C2-C7 haloalkylaminocarbonyl group, a C4-C10 cycloalkyloxy carbonyl group, a C4-C10 halocycloalkyloxy carbonyl group, a benzoyl group, a benzyl group, $-C(=O)C(=O)R_7$, wherein R_7 represents a C1-C6 haloalkyl group, a C1-C6 haloalkyl group, a C1-C6 alkoxy group, or a C1-C6 haloalkoxy group, or a group represented by -L-D, wherein L and D have the same definitions as L and D, respectively, in R_2 .

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Formula (55b)



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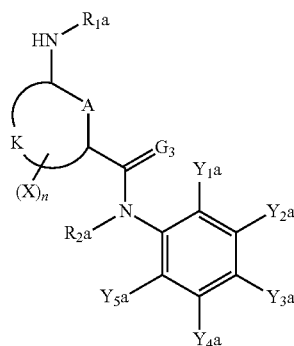
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Wherein R_{2a} has the same definition as R_{2a} in the Formula (49a). X, represents a halogen atom. A, K, X, n, and G_3 have the same definitions as A, K, X, n, and G_3 , respectively, in the Formula (1). Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} have the same definitions as Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} , respectively, in the Formula (6a).

<45> A method for producing the amide derivative represented by the following Formula (53a), including reacting a compound represented by the Formula (55a) according to <42> with an aminating agent:



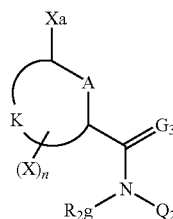
Formula (53a)

Wherein R_{1a} represents a hydrogen atom, an oxygen atom, a halogen atom, a hydroxy group, a nitro group, a nitroso group, a trimethylsilyl group, a t-butyltrimethylsilyl group, a cyano group, an amino group, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C2-C6 alkenyl group, a C2-C6 haloalkenyl group, a C2-C6 alkynyl group, a C2-C6 haloalkynyl group, a C3-C9 cycloalkyl group, a C3-C9 halocycloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C2-C6 alkenyloxy group, a C2-C6 haloalkenyloxy group, a C2-C6 alkynyloxy group, a C2-C6 haloalkynyloxy group, a C3-C9 cycloalkoxy group, a C3-C9 halocycloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a benzenesulfonyl group, a benzylsulfonyl group, a C2-C7 alkylaminocarbonyl group, a C2-C7 haloalkylaminocarbonyl group, a C2-C7 alkylcarbonyloxy group, a C2-C7 haloalkylcarbonyloxy group, a benzyl group, $-C(=O)C(=O)R_7$ (wherein R_7 represents a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C1-C6 alkoxy group, or a C1-C6 haloalkoxy group), or a group represented by -L-D (wherein L and D have the same definitions as L and D, respectively, in R_2). A, K, X, n, and G_3 have the same definitions as A, K, X, n, and G_3 , respectively, in the Formula (1). R_{2a} , Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} have the same definitions as R_{2a} , Y_{1a} , Y_{2a} , Y_{3a} , Y_{4a} , and Y_{5a} , respectively, in the Formula (6a).

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<46> An amide derivative represented by the following Formula (55g):

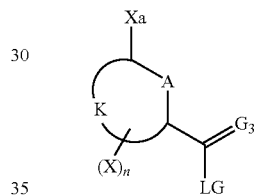
Formula (55g)



Wherein X_a represents a halogen atom. A, K, X, n, G_3 , and Q_2 have the same definitions as A, K, X, n, G_3 , and Q_2 , respectively, in the Formula (1). R_{2g} represents -L-D (wherein L and D have the same definitions as L and D, respectively, in R_2).

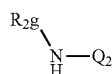
<47> A method for producing the amide derivative represented by the Formula (55g) according to <46>, including reacting a compound represented by the following Formula (54) according to <43> with a compound represented by the following Formula (48g) according to <32>:

Formula (54)



Wherein X_a represents a halogen atom, LG represents a functional group having a leaving ability, such as a halogen atom, a hydroxy group, and the like, and A, K, X, n, and G_3 have the same definitions as A, K, X, n, and G_3 , respectively, in the Formula (1).

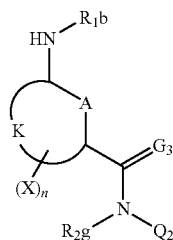
Formula (48g)



Wherein Q_2 has the same definition as Q_2 in the Formula (1). R_{2g} has the same definition as R_{2g} in the Formula (6g).

<48> A method for producing the amide derivative represented by the following Formula (53g), including reacting the compound according to <46> with an aminating agent:

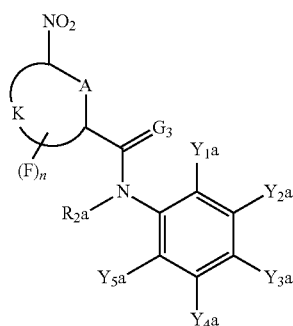
Formula (53g)



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Wherein A, K, X, n, G₃, and Q₂ have the same definitions as A, K, X, n, G₃, and Q₂, respectively, in the Formula (1). R_{2g} has the same definition as R_{2g} in the Formula (6g). R_{1b} represents a hydrogen atom, an oxygen atom, a halogen atom, a hydroxy group, a nitro group, a nitroso group, a trimethylsilyl group, a t-butyltrimethylsilyl group, a cyano group, an amino group, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C2-C6 alkenyl group, a C2-C6 haloalkenyl group, a C2-C6 alkynyl group, a C2-C6 haloalkynyl group, a C3-C9 cycloalkyl group, a C3-C9 halocycloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C2-C6 alkenyloxy group, a C2-C6 haloalkenyloxy group, a C2-C6 alkynyloxy group, a C2-C6 haloalkynyloxy group, a C3-C9 cycloalkoxy group, a C3-C9 halocycloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a benzenesulfonyl group, a benzylsulfonyl group, a C2-C7 alkylcarbonyl group, a C2-C7 haloalkylcarbonyl group, a C3-C7 alkenylcarbonyl group, a C3-C7 haloalkenylcarbonyl group, a C3-C7 alkynylcarbonyl group, a C3-C7 haloalkynylcarbonyl group, a C4-C10 cycloalkylcarbonyl group, a C4-C10 halocycloalkylcarbonyl group, a C2-C7 alkoxy carbonyl group, a C2-C7 haloalkoxy carbonyl group, a C3-C7 alkenyloxy carbonyl group, a C3-C7 haloalkenyloxy carbonyl group, a C3-C7 alkynyloxy carbonyl group, a C3-C7 haloalkynyloxy carbonyl group, a phenoxy carbonyl group, a C2-C7 alkylaminocarbonyl group, a C2-C7 haloalkylaminocarbonyl group, a C2-C7 alkylcarbonyloxy group, a C2-C7 haloalkylcarbonyloxy group, a C4-C10 cycloalkyloxy carbonyl group, a C4-C10 halocycloalkyloxy carbonyl group, a benzoyl group, a benzyl group, —C(=O)C(=O)R₇, wherein R₇ represents a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C1-C6 alkoxy group, or a C1-C6 haloalkoxy group, or a group represented by -L-D, wherein L and D have the same definitions as L and D in R₁.

<49> The amide derivative according to <13>, wherein the compound represented by the Formula (41) is represented by the following Formula (58a):



Formula (58a)

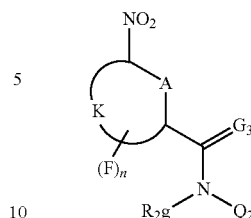
Wherein n represents an integer of from 1 to 4. A, K, G₃, R_{2a}, Y_{1a}, Y_{2a}, Y_{3a}, Y_{4a}, and Y_{5a} have the same definitions as A, K, G₃, R_{2a}, Y_{1a}, Y_{2a}, Y_{3a}, Y_{4a}, and Y_{5a}, respectively, in the Formula (6a).

<50> A method for producing the amide derivative represented by the Formula (58a) according to <49>, including reacting the compound represented by the Formula (41) according to <13>, in which X represents a chlorine atom, a bromine atom, or an iodine atom, with a fluorinating agent.

<51> The amide derivative according to <31>, wherein the compound represented by the Formula (41g) is represented by the following Formula (58g):

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Formula (58g)

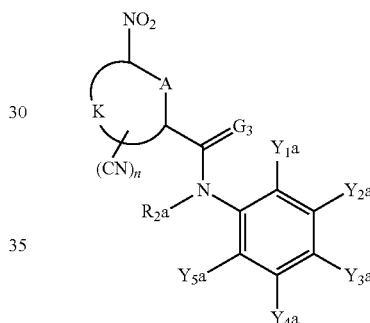


Wherein n represents an integer of from 1 to 4. A, K, G₃ and Q₂ have the same definitions as A, K, G₃ and Q₂, respectively, in the Formula (1). R_{2g} has the same definition as R_{2g} in the Formula (6g).

<52> A method for producing the amide derivative according to <51>, including reacting the compound represented by the Formula (41g) according to <31>, in which X represents a chlorine atom, a bromine atom, or an iodine atom, with a fluorinating agent.

<53> The amide derivative according to <13>, wherein the compound represented by the Formula (41) is represented by the following Formula (60a):

Formula (60a)

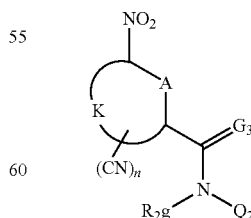


Wherein n represents an integer of from 1 to 4. A, K, G₃, R_{2a}, Y_{1a}, Y_{2a}, Y_{3a}, Y_{4a}, and Y_{5a} have the same definitions as A, K, G₃, R_{2a}, Y_{1a}, Y_{2a}, Y_{3a}, Y_{4a}, and Y_{5a}, respectively, in the Formula (6a).

<54> A method for producing the amide derivative represented by the Formula (60a) according to <53>, including reacting the compound represented by the Formula (41) according to <13>, in which X represents a halogen atom with a cyanating agent.

<55> The amide derivative according to <31>, wherein the compound represented by the Formula (41g) is represented by the following Formula (60g):

Formula (60g)

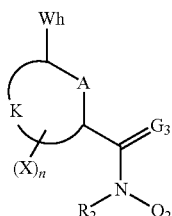


Wherein n represents an integer of from 1 to 4. A, K, G₃ and Q₂ have the same definitions as A, K, G₃ and Q₂, respectively, in the Formula (1). R_{2g} has the same definition as R_{2g} in the Formula (6g).

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<56> A method for producing the amide derivative represented by the Formula (60g) according to <55>, including reacting the compound represented by the Formula (41g) according to <31>, in which X represents a halogen atom with a cyanating agent.

<57> An amide derivative represented by the following Formula (6h):

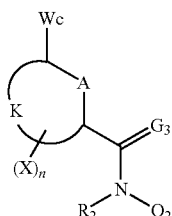


Formula (6h)

Wherein A, K, X, n, G₃, R₂ and Q₂ have the same definitions as A, K, X, n, G₃, R₂ and Q₂, respectively, in the Formula (1).

W_n represents —NH—R₁ or —N(T)—R₁. R₁ and T have the same definitions as R₁ and T, respectively, in the Formula (1), provided that at least either R₁ or R₂ represents a group represented by -L-D.

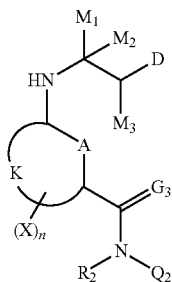
<58> The amide derivative according to <57>, wherein the compound represented by the Formula (6h) is represented by the following Formula (6c):



Formula (6c)

Wherein W_c represents —NH—C(M₁)(M₂)-C(M₃)-D, —N(T)-C(M₁)(M₂)-C(M₃)-D, —N(T)-L-C(=O)-LG, or —N(T)-L-C(=O)—NU₃U₄. M₁, M₂, M₃, D, L, U₃, and U₄ have the same definitions as M₁, M₂, M₃, D, L, U₃, and U₄, respectively, in R₂. LG represents a functional group having a leaving ability, such as a halogen atom, a hydroxy group, and the like. T, A, K, X, n, G₃, R₂ and Q₂ have the same definitions as T, A, K, X, n, G₃, R₂ and Q₂, respectively, in the Formula (1).

<59> The amide derivative according to <58>, which is represented by the Formula (61):

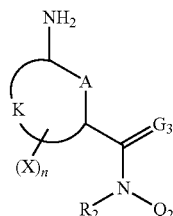


Formula (61)

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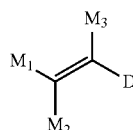
Wherein M₁, M₂, M₃, D, A, K, X, n, G₃, R₂ and Q₂ have the same definitions as M₂, M₃, D, A, K, X, n, G₃, R₂ and Q₂, respectively, in the Formula (6c).

<60> A method for producing the amide derivative represented by the Formula (61) according to <59>, including reacting a compound represented by the following Formula (51) with a compound represented by the following Formula (62):



Formula (51)

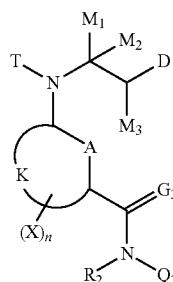
Wherein R₂, A, K, X, n, G₃, and Q₂ have the same definitions as R₂, A, K, X, n, G₃, and Q₂, respectively, in the Formula (1).



Formula (62)

Wherein M₁, M₂, M₃, and D have the same definitions as M₁, M₂, M₃, and D, respectively, in the Formula (1).

<61> The amide derivative according to <58>, wherein the compound represented by the Formula (6c) is represented by the following Formula (63):

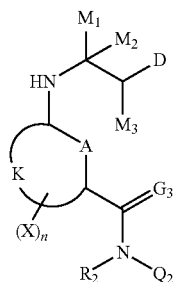


Formula (63)

Wherein T, M₁, M₂, M₃, D, A, K, X, n, G₃, R₂ and Q₂ have the same definitions as T, M₁, M₂, M₃, D, A, K, X, n, G₃, R₂ and Q₂, respectively, in the Formula (6c).

<62> A method for producing the amide derivative represented by the Formula (63) according to <61>, including reacting the compound represented by the following Formula (61) according to <59> with the compound represented by the following Formula (45) according to <39>:

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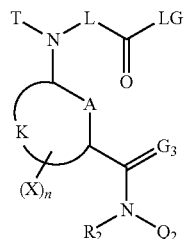
Wherein A, K, Q₂, R₂, G₃, X, n, M₁, M₂, M₃ and D have the same definitions as A, K, Q₂, R₂, G₃, X, n, M₁, M₂, M₃ and D, respectively, in the Formula (6c).

T-LG

Formula (45)

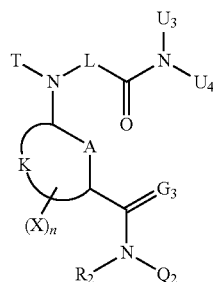
Wherein LG represents a functional group having a leaving ability, such as a halogen atom, a hydroxy group, or the like, and T has the same definition as T in the Formula (1).

<63> The amide derivative according to <58>, wherein the compound represented by the Formula (6c) is represented by the following Formula (64):



Wherein LG represents a functional group having a leaving ability, such as a halogen atom, a hydroxy group, or the like, and T, A, K, Q₂, R₂, G₃, X, n, and L have the same definitions as T, A, K, Q₂, R₂, G₃, X, n, and L, respectively, in the Formula (6c).

<64> The amide derivative according to <58>, wherein the compound represented by the Formula (6c) is represented by the following Formula (65):



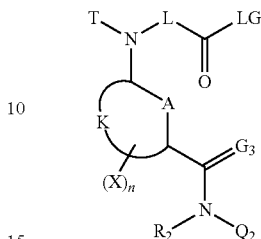
Wherein T, L, U₃, U₄, A, K, X, n, G₃, R₂ and Q₂ have the same definitions as T, L, U₃, U₄, A, K, X, n, G₃, R₂ and Q₂, respectively, in the Formula (6c).

<65> A method for producing the amide derivative represented by the Formula (65) according to <64>, including

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reacting the compound represented by the following Formula (64) according to <63> with the compound represented by the following Formula (66):

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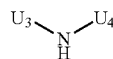
Formula (64)

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Formula (66)

Formula (64)

Wherein U₃ and U₄ have the same definitions as U₃ and U₄, respectively, in the Formula (1).

<66> The amide derivative according to <64>, wherein in the Formula (65), U₄ is a C2-C7 alkoxy carbonyl group which may have a substituent, a C2-C7 haloalkoxy carbonyl group which may have a substituent, a C2-C7 alkyl carbonyl group which may have a substituent, or a C2-C7 haloalkyl carbonyl group which may have a substituent.

<67> A method for producing the amide derivative represented by the Formula (65) according to <66>, including reacting the compound according to <64>, in which the compound represented by the Formula (65) is represented by the following Formula (68), with a compound represented by the following Formula (67):

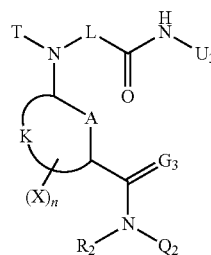
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Formula (68)

Wherein T, L, U₃, A, K, X, n, G₃, R₂ and Q₂ have the same definitions as T, L, U₃, A, K, X, n, G₃, R₂ and Q₂, respectively, in the Formula (6c).

U₄-LG

Formula (67)

Wherein U₄ has the same definition as U₄ in <66>.

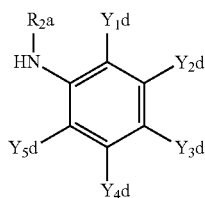
<68> A method for producing the aniline derivative represented by the following Formula (6e), including reacting the compound of the Formula (6d) in which R_{2a} is a hydrogen atom, with the compound represented by the following Formula (49a) according to <17>:

R_{2a}-LG

Formula (49a)

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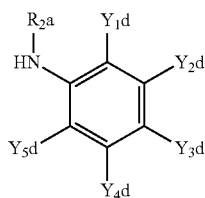
Wherein LG represents a functional group having a leaving ability, such as a halogen atom, a hydroxy group, or the like, and R_{2a} represents a trimethylsilyl group, a t-butyldimethylsilyl group, a cyano group, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C2-C6 alkenyl group, a C2-C6 haloalkenyl group, a C2-C6 alkynyl group, a C2-C6 haloalkynyl group, a C3-C9 cycloalkyl group, a C3-C9 halocycloalkyl group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a benzenesulfonyl group, a benzylsulfonyl group, a C2-C7 alkylcarbonyl group, a C2-C7 haloalkylcarbonyl group, a C3-C7 alkenylcarbonyl group, a C3-C7 haloalkenylcarbonyl group, a C3-C7 alkynylcarbonyl group, a C3-C7 haloalkynylcarbonyl group, a C4-C10 cycloalkylcarbonyl group, a C4-C10 halocycloalkylcarbonyl group, a C2-C7 alkoxy carbonyl group, a C2-C7 haloalkoxy carbonyl group, a C3-C7 alkenyloxy carbonyl group, a C3-C7 haloalkenyloxy carbonyl group, a C3-C7 alkynyloxy carbonyl group, a C3-C7 haloalkynyloxy carbonyl group, a phenoxycarbonyl group, a C2-C7 alkylaminocarbonyl group, a C2-C7 haloalkylaminocarbonyl group, a C4-C10 cycloalkyloxy carbonyl group, a C4-C10 halocycloalkyloxy carbonyl group, a benzoyl group, a benzyl group, $-C(=O)C(=O)R_7$, wherein R_7 represents a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C1-C6 alkoxy group, or a C1-C6 haloalkoxy group, or a group represented by -L-D, wherein L and D have the same definitions as L and D, respectively, in R_2 .



Formula (6e)

Wherein R_{2a} has the same definition as R_{2a} in the Formula (49a), and Y_{1d} , Y_{2d} , Y_{3d} , Y_{4d} , and Y_{5d} have the same definitions as Y_{1d} , Y_{2d} , Y_{3d} , Y_{4d} , and Y_{5d} respectively, in the Formula (6a).

<69> A method for producing the aniline derivative represented by the following Formula (6i), including reacting the compound of the Formula (6d) in which R_{2a} is a hydrogen atom with an aldehyde:



Formula (6i)

Wherein R_{2a} represents a C1-C6 alkyl group, a C1-C6 haloalkyl group, or a benzyl group, and Y_{1d} , Y_{2d} , Y_{3d} , Y_{4d} , and Y_{5d} have the same definitions as Y_{1d} , Y_{2d} , Y_{3d} , Y_{4d} , and Y_{5d} respectively, in the Formula (6a).

<70> A pest control agent containing at least one kind of the amide derivative according to any one of <1> to <8> as an active ingredient.

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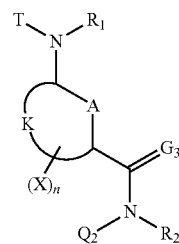
<71> A pest controlling method including applying the pest control agent according to <70>.

Effects of the Invention

According to the present invention, an amide derivative exhibiting a pesticidal effect against various agricultural pests, having an effect of protection of useful crops, greatly contributing to reduction in an environmental impact owing to the use at a low dose, a pest control agent containing the amide derivative, and a pest controlling method can be provided.

BEST MODE FOR CARRYING OUT THE INVENTION

The amide derivative according to the present invention is a compound represented by the following Formula (1). It has a specific structure and thus exhibits an excellent pest control effect.



Formula (1)

In the formula, A represents a carbon atom, an oxygen atom, a nitrogen atom, an oxidized nitrogen atom, or a sulfur atom.

K represents a non-metal atom group necessary for forming a cyclic linking group derived from benzene, pyridine, pyridine-N-oxide, pyrimidine, pyrazine, pyridazine, triazine, pyrrole, pyrazole, imidazole, oxazole, isoxazole, thiazole, isothiazole, furan, thiophene, oxadiazole, thiodiazole, or triazole, in combination with A and two carbon atoms to which A bonds.

X represents a hydrogen atom, a halogen atom, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C3-C9 cycloalkyl group, a C3-C9 halocycloalkyl group, a C2-C6 alkenyl group, a C2-C6 haloalkenyl group, a C2-C6 alkynyl group, a C2-C6 haloalkynyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a C1-C6 alkylsulfonyloxy group, a C1-C6 haloalkylsulfonyloxy group, a C2-C7 alkylcarbonyl group, a C2-C7 haloalkylcarbonyl group, a C2-C7 alkylcarbonyloxy group, a C2-C7 haloalkylcarbonyloxy group, an arylcarbonyloxy group, a C2-C7 alkoxy carbonyl group, a C2-C7 haloalkoxy carbonyl group, a C2-C7 alkylcarbonylamino group, a C2-C7 haloalkylcarbonylamino group, a C2-C7 alkoxy carbonylamino group, a C2-C7 haloalkoxy carbonylamino group, a C2-C7 alkoxy carbonyloxy group, a C2-C7 haloalkoxy carbonyloxy group, an arylcarbonylamino group, an amino group, a carbamoyl group, a cyano group, a nitro group, a hydroxy group, a pentafluorosulfanyl group, a C1-C6 alkylamino group, a C1-C6 haloalkylamino group, a C2-C6 alkenylamino group, a C2-C6 haloalkenylamino group, a C2-C6 alkynylamino group, a C2-C6 haloalkynylamino group, a C3-C9 cycloalkylamino group, a C3-C9

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halocycloalkylamino group, a C2-C7 alkylaminocarbonyl group, a C2-C7 haloalkylaminocarbonyl group, a C3-C7 alkynylaminocarbonyl group, a C3-C7 haloalkenylaminocarbonyl group, a C3-C7 haloalkynylaminocarbonyl group, a C4-C10 cycloalkylaminocarbonyl group, a C4-C10 halocycloalkylaminocarbonyl group, a phenyl group, or a heterocyclic group, and when there are plural X's, each X may be the same as or different from each other.

The heterocyclic group in X represents a pyridyl group, a pyridine-N-oxide group, a pyrimidinyl group, a pyrazinyl group, a pyridazyl group, a furyl group, a thienyl group, an oxazolyl group, an isoxazolyl group, an oxadiazolyl group, a thiazolyl group, an isothiazolyl group, a thiadiazolyl group, a pyrrolyl group, an imidazolyl group, a triazolyl group, a pyrazolyl group, or a tetrazolyl group.

n represents an integer of from 0 to 4. Further, n represents a number of substituents which is not hydrogen atom.

T represents $-\text{C}(=\text{G}_1)-\text{Q}_1$ or $-\text{C}(=\text{G}_1)-\text{G}_2\text{Q}_3$.

In the formula, G_1 and G_2 each independently represent an oxygen atom or a sulfur -atom.

Q_1 and Q_3 each independently represent a hydrogen atom, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C2-C6 alkenyl group, a C2-C6 haloalkenyl group, a C2-C6 alkynyl group, a C2-C6 haloalkynyl group, a C3-C9 cycloalkyl group, a C3-C9 halocycloalkyl group, a benzyl group, a phenyl group which may have a substituent, a naphthyl group which may have a substituent, or a heterocyclic group which may have a substituent.

Q_2 represents a phenyl group which may have a substituent, a naphthyl group which may have a substituent, a heterocyclic group which may have a substituent, or a tetrahydronaphthalene group which may have a substituent.

Further, in Q_1 , Q_3 , and Q_2 , the substituent of a phenyl group which may have a substituent, a naphthyl group which may have a substituent, and a heterocyclic group which may have a substituent, and the substituent of a tetrahydronaphthalene group which may have a substituent represents one or more substituent selected from a group consisting of a halogen atom, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C3-C9 cycloalkyl group, a C3-C9 halocycloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a C2-C7 alkylcarbonyloxy group, a C2-C7 haloalkylcarbonyloxy group, a C1-C6 alkylsulfonyloxy group, a C1-C6 haloalkylsulfonyloxy group, a C2-C7 alkoxycarbonyl group, a C2-C7 haloalkoxycarbonyl group, a C2-C7 alkylcarbonylamino group, a C2-C7 haloalkylcarbonylamino group, a C2-C7 alkoxycarbonylamino group, a C2-C7 haloalkoxycarbonylamino group, a C1-C6 alkylamino group, a C1-C6 haloalkylamino group, an amino group, a carbamoyl group, a sulfamoyl group, a cyano group, a nitro group, a hydroxy group, a carboxy group, a pentafluorosulfanyl group, a benzyloxy group, a benzyloxycarbonyl group, a phenyl group, a heterocyclic group, a benzoyl group, a phenylcarbamoyl group, and a phenylamino group, and when there are two or more substituents, the substituents may be the same as or different from each other.

Moreover, the heterocyclic group in Q_1 , Q_3 , and Q_2 has the same definition as the heterocyclic group in X.

G_3 represents an oxygen atom or a sulfur atom.

R_1 and R_2 each independently represent a hydrogen atom, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C2-C6 alkenyl group, a C2-C6 haloalkenyl group, a C2-C6 alkynyl

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group, a C2-C6 haloalkynyl group, a C3-C9 cycloalkyl group, a C3-C9 halocycloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C2-C6 alkenyloxy group, a C2-C6 haloalkenyloxy group, a C2-C6 alkynyloxy group, a C2-C6 haloalkynyloxy group, a C3-C9 cycloalkoxy group, a C3-C9 halocycloalkoxy group, a C2-C7 alkylcarbonyl group, a C2-C7 haloalkylcarbonyl group, a C3-C7 alkenylcarbonyl group, a C3-C7 haloalkenylcarbonyl group, a C3-C7 alkynylcarbonyl group, a C3-C7 haloalkynylcarbonyl group, a C4-C10 cycloalkylcarbonyl group, a C4-C10 halocycloalkylcarbonyl group, a C2-C7 alkoxycarbonyl group, a C2-C7 haloalkoxycarbonyl group, a C3-C7 alkenyloxycarbonyl group, a C3-C7 haloalkenyloxycarbonyl group, a C3-C7 alkynyloxycarbonyl group, a C3-C7 haloalkynyloxycarbonyl group, a C4-C10 cycloalkyloxycarbonyl group, a C4-C10 halocycloalkyloxycarbonyl group, or, a group represented by -L-D, provided that at least either R_1 or R_2 represents a group represented by -L-D.

Wherein L represents $-\text{C}(\text{M}_1)(\text{M}_2)-$, $-\text{C}(\text{M}_1)(\text{M}_2)-\text{C}(\text{M}_3)(\text{M}_4)-$, $-\text{C}(\text{M}_1)=\text{C}(\text{M}_3)-$, $-\text{C}\equiv\text{C}-$, $-\text{C}(\text{M}_1)(\text{M}_2)-\text{C}(\text{M}_3)(\text{M}_4)-\text{C}(\text{M}_5)(\text{M}_6)-$, $-\text{C}(\text{M}_1)=\text{C}(\text{M}_3)-\text{C}(\text{M}_5)(\text{M}_6)-$, $-\text{C}(\text{M}_1)(\text{M}_2)-\text{C}(\text{M}_3)=\text{C}(\text{M}_5)-$, $-\text{C}\equiv\text{C}-\text{C}(\text{M}_5)(\text{M}_6)-$, $-\text{C}(\text{M}_1)(\text{M}_2)-\text{C}\equiv\text{C}-$, $-\text{C}(\text{M}_1)(\text{M}_2)-\text{C}(\text{M}_3)(\text{M}_4)-\text{C}(\text{M}_5)(\text{M}_6)-\text{C}(\text{M}_7)(\text{M}_8)-$, $-\text{C}(\text{M}_1)=\text{C}(\text{M}_3)-\text{C}(\text{M}_5)(\text{M}_6)-\text{C}(\text{M}_7)(\text{M}_8)-$, $-\text{C}(\text{M}_1)(\text{M}_2)-\text{C}(\text{M}_3)=\text{C}(\text{M}_5)-\text{C}(\text{M}_7)(\text{M}_8)-$, $-\text{C}(\text{M}_1)(\text{M}_2)-\text{C}(\text{M}_3)(\text{M}_4)-\text{C}(\text{M}_5)=\text{C}(\text{M}_7)-$, $-\text{C}(\text{M}_1)=\text{C}(\text{M}_3)-\text{C}(\text{M}_5)=\text{C}(\text{M}_7)-$, $-\text{C}(\text{M}_1)=\text{C}(\text{M}_3)-\text{C}\equiv\text{C}-$, $-\text{C}\equiv\text{C}-\text{C}(\text{M}_5)(\text{M}_6)-\text{C}(\text{M}_7)(\text{M}_8)-$, $-\text{C}(\text{M}_1)(\text{M}_2)-\text{C}\equiv\text{C}-\text{C}(\text{M}_7)(\text{M}_8)-$, $-\text{C}(\text{M}_1)(\text{M}_2)-\text{C}(\text{M}_3)(\text{M}_4)-\text{C}\equiv\text{C}-$, $-\text{C}\equiv\text{C}-\text{C}(\text{M}_5)=\text{C}(\text{M}_7)-$, or $-\text{C}\equiv\text{C}-\text{C}\equiv\text{C}-$.

M_1 to M_8 each independently represent a hydrogen atom, a halogen atom, a cyano group, a nitro group, an amino group, a carboxy group, a hydroxy group, a carbamoyl group, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C2-C6 alkenyl group, a C2-C6 haloalkenyl group, a C2-C6 alkynyl group, a C2-C6 haloalkynyl group, a C3-C9 cycloalkyl group, a C3-C9 halocycloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C2-C6 alkenyloxy group, a C2-C6 haloalkenyloxy group, a C2-C6 alkynyloxy group, a C2-C6 haloalkynyloxy group, a C3-C9 cycloalkoxy group, a C3-C9 halocycloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C2-C6 alkenylthio group, a C2-C6 haloalkenylthio group, a C2-C6 alkynylthio group, a C2-C6 haloalkynylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C2-C6 alkynylsulfinyl group, a C2-C6 haloalkenylsulfinyl group, a C2-C6 alkynylsulfinyl group, a C2-C6 haloalkynylsulfinyl group, a C3-C9 cycloalkylsulfinyl group, a C3-C9 halocycloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a C2-C6 alkenylsulfonyl group, a C2-C6 haloalkenylsulfonyl group, a C2-C6 alkynylsulfonyl group, a C2-C6 haloalkynylsulfonyl group, a C3-C9 cycloalkylsulfonyl group, a C3-C9 halocycloalkylsulfonyl group, a C2-C7 alkylcarbonyl group, a C2-C7 haloalkylcarbonyl group, a C3-C7 alkenylcarbonyl group, a C3-C7 haloalkenylcarbonyl group, a C3-C7 alkynylcarbonyl group, a C3-C7 haloalkynylcarbonyl group, a C4-C10 cycloalkylcarbonyl group, a C4-C10 halocycloalkylcarbonyl group, a C2-C7 alkoxycarbonyl group, a C2-C7 haloalkoxycarbonyl group, a C3-C7 alkenyloxycarbonyl group, a C3-C7 haloalkenyloxycarbonyl group, a C3-C7 alkynyloxycarbonyl group, a C3-C7 haloalkynyloxycarbonyl group, a C4-C10 cycloalkyloxycarbonyl group, a C4-C10 halocycloalkyloxycarbonyl group, a C1-C6 alkylamino group, a C1-C6 haloalkylamino group, a C2-C6 alkenylamino group, a C2-C6 haloalkenylamino group, a C2-C6 alkynylamino group, a C2-C6 haloalkynylamino group, a C3-C9 cycloalkylamino group, a C3-C9

halocycloalkylamino group, a C2-C7 alkylaminocarbonyl group, a C2-C7 haloalkylaminocarbonyl group, a C3-C7 alkenylaminocarbonyl group, a C3-C7 haloalkenylaminocarbonyl group, a C3-C7 alkynylaminocarbonyl group, a C3-C7 haloalkynylaminocarbonyl group, a C4-C10 cycloalkylaminocarbonyl group, a C4-C10 halocycloalkylaminocarbonyl group, a phenyl group, a naphthyl group, or a heterocyclic group.

D represents $-\text{C}(=\text{O})\text{OU}_1$, $-\text{C}(=\text{O})\text{U}_2$, $-\text{C}(=\text{O})\text{NU}_3\text{U}_4$, $-\text{NU}_5\text{C}(=\text{O})\text{U}_6$, $-\text{S}-\text{U}_7$, $-\text{S}(=\text{O})\text{U}_8$, $-\text{S}(=\text{O})(=\text{O})\text{U}_9$, $-\text{S}(=\text{O})(=\text{O})\text{NU}_{10}\text{U}_{11}$, $-\text{OU}_{12}$, $-\text{NU}_{13}\text{U}_{14}$, $-\text{C}(=\text{NU}_{15})\text{U}_{16}$, $-\text{NU}_{17}-\text{C}(=\text{NU}_{18})\text{U}_{19}$, or $-\text{C}\equiv\text{N}$.

U_1 to U_{19} each independently represent a hydrogen atom, a hydroxy group, an amino group, a cyano group, a nitro group, a C1-C6 alkyl group which may have a substituent, a C1-C6 haloalkyl group, a C2-C6 alkenyl group, a C2-C6 haloalkenyl group, a C2-C6 alkynyl group, a C2-C6 haloalkynyl group, a C3-C9 cycloalkyl group, a C3-C9 halocycloalkyl group, a C2-C7 alkoxy carbonyl group, a C2-C7 haloalkoxy carbonyl group, a C2-C7 alkyl carbonyl group, a C2-C7 haloalkyl carbonyl group, a C1-C3 alkylamino group, a C1-C3 haloalkylamino group, a phenyl group, a naphthyl group, or a heterocyclic group.

U_3 and U_4 , U_5 and U_6 , U_{10} and U_{11} , U_{12} and U_{13} and U_{14} , U_{15} and U_{16} , and U_{17} to U_{19} may be linked with each other to form a saturated heterocyclic group.

However, in a case where D represents $-\text{OU}_{12}$ and L represents a methylene group, U_{12} represents a hydrogen atom, a hydroxy group, an amino group, a cyano group, a nitro group, a C2-C6 alkyl group which may have a substituent, a C1-C6 haloalkyl group, a C2-C6 alkenyl group, a C2-C6 haloalkenyl group, a C2-C6 alkynyl group, a C2-C6 haloalkynyl group, a C3-C9 cycloalkyl group, a C3-C9 halocycloalkyl group, a C2-C7 alkoxy carbonyl group, a C2-C7 haloalkoxy carbonyl group, a C2-C7 alkyl carbonyl group, a C2-C7 haloalkyl carbonyl group, a C1-C3 alkylamino group, a C1-C3 haloalkylamino group, a phenyl group, a naphthyl group, or a heterocyclic group.

The terms used in the formulae including the Formula (1) and the like according to the present invention have the same meanings as described below in the definitions.

The "halogen atom" represents a fluorine atom, a chlorine atom, a bromine atom, or an iodine atom.

The expression "Ca-Cb (wherein a and b represent an integer of 1 or more)", for example, "C1-C3" means the number of carbon atoms of from 1 to 3, the "C2-C6" means the number of carbon atoms of from 2 to 6, and the "C1-C4" means the number of carbon atoms of from 1 to 4.

"n-" means normal, "i-" means iso, "s-" means secondary, and "t-" means tertiary.

The "C1-C6 alkyl group" in the present invention represents, for example, a linear or branched alkyl group having from 1 to 6 carbon atoms such as methyl, ethyl, n-propyl, propyl, n-butyl, s-butyl, t-butyl, n-pentyl, 2-pentyl, neopentyl, 4-methyl-2-pentyl, n-hexyl, 3-methyl-n-pentyl, and the like.

Furthermore, in a case where only the number of carbon atoms constituting the same substituent is different, specific examples in which there is a matching number of carbon atoms among the specific examples of the substituent shown below become the corresponding specific examples.

The "C1-C6 haloalkyl group" represents, for example, a linear or branched alkyl group having from 1 to 6 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other, such as trifluoromethyl, pentafluoroethyl, heptafluoro-n-propyl,

heptafluoro-1-propyl, 2,2-difluoroethyl, 2,2-dichloroethyl, 2,2,2-trifluoroethyl, 2-fluoroethyl, 2-chloroethyl, 2-bromoethyl, 2-iodoethyl, 2,2,2-trichloroethyl, 2,2,2-tribromoethyl, 1,3-difluoro-2-propyl, 1,3-dichloro-2-propyl, 1-chloro-3-fluoro-2-propyl, 1,1,1-trifluoro-2-propyl, 2,3,3,3-trifluoro-n-propyl, 4,4,4-trifluoro-n-butyl, 1,1,1,3,3,3-hexafluoro-2-propyl, 1,1,1,3,3,3-hexafluoro-2-chloro-2-propyl, 1,1,1,3,3,3-hexafluoro-2-bromo-2-propyl, 1,1,2,3,3,3-hexafluoro-2-chloro-n-propyl, 1,1,2,3,3,3-hexafluoro-2-bromo-n-propyl, 1,1,2,3,3,3-hexafluoro-1-bromo-2-propyl, 2,2,3,3,3-pentafluoro-n-propyl, 3-fluoro-n-propyl, 3-chloro-n-propyl, 3-bromo-n-propyl, 3,3,4,4,4-pentafluoro-2-butyl, nonafluoro-n-butyl, nonafluoro-2-butyl, 5,5,5-trifluoro-n-pentyl, 4,4,5,5,5-pentafluoro-2-pentyl, 3-chloro-n-pentyl, 4-bromo-2-pentyl, and the like.

The "C3-C9 cycloalkyl group" represents, for example, a cycloalkyl group having from 3 to 9 carbon atoms, that has a cyclic structure, such as cyclopropyl, cyclobutyl, cyclopentyl, 2-methylcyclopentyl, 3-methylcyclopentyl, cyclohexyl, 2-methylcyclohexyl, 3-methylcyclohexyl, 4-methylcyclohexyl, and the like.

The "C3-C9 halocycloalkyl group" represents, for example, a cycloalkyl group having from 3 to 9 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other and has a cyclic structure, such as 2,2,3,3-tetrafluorocyclobutyl, 2-chlorocyclohexyl, 4-chlorocyclohexyl, and the like.

The "C2-C6 alkenyl group" represents, for example, an alkenyl group having from 2 to 6 carbon atoms, that has a double bond in the carbon chain, such as vinyl, allyl, 2-butenyl, 3-butenyl, and the like.

The "C2-C6 haloalkenyl group" represents, for example, a linear or branched alkenyl group having from 2 to 6 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other and has a double bond in the carbon chain, such as 3,3-difluoro-2-propenyl, 3,3-dichloro-2-propenyl, 3,3-dibromo-2-propenyl, 2,3-dibromo-2-propenyl, 4,4-difluoro-3-butenyl, 3,4,4-tribromo-3-butenyl, and the like.

The "C2-C6 alkynyl group" represents, for example, an alkynyl group having from 2 to 6 carbon atoms, that has a triple bond in the carbon chain, such as propargyl, 1-butyne-3-yl, 1-butyne-3-methyl-3-yl, and the like.

The "C2-C6 haloalkynyl group" represents, for example, a linear or branched alkynyl group having from 2 to 6 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other and has a triple bond in the carbon chain, such as fluoroethynyl, chloroethynyl, bromoethynyl, 3,3,3-trifluoro-1-propynyl, 3,3,3-trichloro-1-propynyl, 3,3,3-tribromo-1-propynyl, 4,4,4-trifluoro-1-butyne-1-butynyl, 4,4,4-trichloro-1-butyne-1-butynyl, and the like.

The "C1-C6 alkoxy group" represents, for example, a linear, branched, or cyclic alkoxy group having from 1 to 6 carbon atoms, such as methoxy, ethoxy, n-propyloxy, i-propyloxy, cyclopropoxy, n-butoxy, s-butoxy, i-butoxy, t-butoxy, n-pentyloxy, i-pentyloxy, n-hexyloxy, cyclohexyloxy, and the like.

The "C1-C6 haloalkoxy group" represents, for example, a linear, branched, or cyclic alkoxy group having from 1 to 6 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other, such as trifluoromethoxy, pentafluoroethoxy, 2-chloroethoxy, 2,2,2-trifluoroethoxy, heptafluoro-n-propoxy, heptafluoro-1-propoxy, 1,1,1,3,3,3-hexafluoro-2-propoxy, 3-fluoro-n-propoxy, 1-chlorocyclopropoxy, 2-bromocyclopropoxy, 3,3,4,4,4-pentafluoro-2-butoxy, nonafluoro-n-butoxy, nonafluoro-2-

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butoxy, 5,5,5-trifluoro-n-pentyloxy, 4,4,5,5,5-pentafluoro-2-pentyloxy, 3-chloro-n-pentyloxy, 4-bromo-2-pentyloxy, 4-chlorobutyloxy, 2-iodo-n-propyloxy, and the like.

The "C1-C6 alkylthio group" represents, for example, a linear, branched, or cyclic alkylthio group having from 1 to 6 carbon atoms, such as methylthio, ethylthio, n-propylthio, i-propylthio, cyclopropylthio, n-butylthio, s-butylthio, i-butylthio, t-butylthio, n-pentylthio, i-pentylthio, n-hexylthio, cyclohexylthio, and the like.

The "C1-C6 haloalkylthio group" represents, for example, a linear, branched, or cyclic alkylthio group having from 1 to 6 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other, such as trifluoromethylthio, pentafluoroethylthio, 2-chloroethylthio, 2,2,2-trifluoroethylthio, heptafluoro-n-propylthio, heptafluoro-1-propylthio, 1,1,1,3,3,3-hexafluoro-2-propylthio, 3-fluoro-n-propylthio, 1-chlorocyclopropylthio, 2-bromocyclopropylthio, 3,3,4,4,4-pentafluoro-2-butylthio, nonafluoro-n-butylthio, nonafluoro-2-butylthio, 5,5,5-trifluoro-n-pentylthio, 4,4,5,5,5-pentafluoro-2-pentylthio, 3-chloro-n-pentylthio, 4-bromo-2-pentylthio, 4-chlorobutylthio, 2-iodo-n-propylthio, and the like.

The "C1-C6 alkylsulfinyl group" represents, for example, a linear, branched, or cyclic alkylsulfinyl group having from 1 to 6 carbon atoms, such as methylsulfinyl, ethylsulfinyl, n-propylsulfinyl, i-propylsulfinyl, cyclopropylsulfinyl, n-butylsulfinyl, s-butylsulfinyl, i-butylsulfinyl, t-butylsulfinyl, n-pentylsulfinyl, i-pentylsulfinyl, n-hexylsulfinyl, cyclohexylsulfinyl, and the like.

The "C1-C6 haloalkylsulfinyl group" represents, for example, a linear, branched, or cyclic alkylsulfinyl group having from 1 to 6 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other, such as trifluoromethylsulfinyl, pentafluoroethylsulfinyl, 2-chloroethylsulfinyl, 2,2,2-trifluoroethylsulfinyl, heptafluoro-n-propylsulfinyl, heptafluoro-1-propylsulfinyl, 1,1,1,3,3,3-hexafluoro-2-propylsulfinyl, 3-fluoro-n-propylsulfinyl, 1-chlorocyclopropylsulfinyl, 2-bromocyclopropylsulfinyl, 3,3,4,4,4-pentafluoro-2-butylsulfinyl, nonafluoro-n-butylsulfinyl, nonafluoro-2-butylsulfinyl, 5,5,5-trifluoro-n-pentylsulfinyl, 4,4,5,5,5-pentafluoro-2-pentylsulfinyl, 3-chloro-n-pentylsulfinyl, 4-bromo-2-pentylsulfinyl, 4-chlorobutylsulfinyl, 2-iodo-n-propylsulfinyl, and the like.

The "C1-C6 alkylsulfonyl group" represents, for example, a linear, branched, or cyclic alkylsulfonyl group having from 1 to 6 carbon atoms, such as methylsulfonyl, ethylsulfonyl, n-propylsulfonyl, i-propylsulfonyl, cyclopropylsulfonyl, n-butylsulfonyl, s-butylsulfonyl, i-butylsulfonyl, t-butylsulfonyl, n-pentylsulfonyl, i-pentylsulfonyl, n-hexylsulfonyl, cyclohexylsulfonyl, and the like.

The "C1-C6 haloalkylsulfonyl group" represents, for example, a linear, branched, or cyclic alkylsulfonyl group having from 1 to 6 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other, such as trifluoromethylsulfonyl, pentafluoroethylsulfonyl, 2-chloroethylsulfonyl, 2,2,2-trifluoroethylsulfonyl, heptafluoro-n-propylsulfonyl, heptafluoro-1-propylsulfonyl, 1,1,1,3,3,3-hexafluoro-2-propylsulfonyl, 3-fluoro-n-propylsulfonyl, 1-chlorocyclopropylsulfonyl, 2-bromocyclopropylsulfonyl, 3,3,4,4,4-pentafluoro-2-butylsulfonyl, nonafluoro-n-butylsulfonyl, nonafluoro-2-butylsulfonyl, 5,5,5-trifluoro-n-pentylsulfonyl, 4,4,5,5,5-pentafluoro-2-pentylsulfonyl, 3-chloro-n-pentylsulfonyl, 4-bromo-2-pentylsulfonyl, 4-chlorobutylsulfonyl, 2-iodo-n-propylsulfonyl, and the like.

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The "C1-C6 alkylsulfonyloxy group" represents, for example, a linear, branched, or cyclic alkylsulfonyloxy group having from 1 to 6 carbon atoms, such as methanesulfonyloxy, ethanesulfonyloxy, n-propanesulfonyloxy, i-propanesulfonyloxy, cyclopropanesulfonyloxy, n-butanesulfonyloxy, s-butanesulfonyloxy, i-butanesulfonyloxy, t-butanesulfonyloxy, n-pentanesulfonyloxy, i-pentanesulfonyloxy, n-hexanesulfonyloxy, cyclohexanesulfonyloxy, and the like.

The "C1-C6 haloalkylsulfonyloxy group" represents, for example, a linear, branched, or cyclic alkylsulfonyloxy group having from 1 to 6 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other, such as trifluoromethanesulfonyloxy, pentafluoropropanesulfonyloxy, 2-chloropropanesulfonyloxy, 2,2,2-trifluoropropanesulfonyloxy, heptafluoro-n-propanesulfonyloxy, heptafluoro-1-propanesulfonyloxy, 1,1,1,3,3,3-hexafluoro-2-propanesulfonyloxy, 3-fluoro-n-propanesulfonyloxy, 1-chlorocyclopropanesulfonyloxy, 2-bromocyclopropanesulfonyloxy, 3,3,4,4,4-pentafluoro-2-butanessulfonyloxy, nonafluoro-n-butanessulfonyloxy, nonafluoro-2-butanessulfonyloxy, 5,5,5-trifluoro-n-pentanesulfonyloxy, 4,4,5,5,5-pentafluoro-2-pentanesulfonyloxy, 3-chloro-n-pentanesulfonyloxy, 4-bromo-2-pentanesulfonyloxy, 4-chlorobutanessulfonyloxy, 2-iodo-n-propanesulfonyloxy, and the like.

The "C2-C7 alkylcarbonyl group" represents, for example, a linear, branched, or cyclic alkylcarbonyl group having from 2 to 7 carbon atoms, such as acetyl, propionyl, propylcarbonyl, cyclopropylcarbonyl, n-butylcarbonyl, s-butylcarbonyl, t-butylcarbonyl, n-pentylcarbonyl, 2-pentylcarbonyl, neopentylcarbonyl, cyclopentylcarbonyl, and the like.

The "C2-C7 haloalkylcarbonyl group" represents, for example, a linear, branched, or cyclic alkylcarbonyl group having from 2 to 7 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other, such as trifluoroacetyl, pentafluoropropionyl, 2-chloropropionyl, 2,2,2-trifluoropropionyl, heptafluoro-n-propylcarbonyl, heptafluoro-1-propylcarbonyl, 1,1,1,3,3,3-hexafluoro-2-propylcarbonyl, 3-fluoro-n-propylcarbonyl, 1-chlorocyclopropylcarbonyl, 2-bromocyclopropylcarbonyl, 3,3,4,4,4-pentafluoro-2-butylcarbonyl, nonafluoro-n-butylcarbonyl, nonafluoro-2-butylcarbonyl, 5,5,5-trifluoro-n-pentylcarbonyl, 4,4,5,5,5-pentafluoro-2-pentylcarbonyl, 3-chloro-n-pentylcarbonyl, 4-bromo-2-pentylcarbonyl, 4-chlorobutylcarbonyl, 2-iodo-n-propylcarbonyl, and the like.

The "C2-C7 alkylcarbonyloxy group" represents, for example, a linear, branched, or cyclic alkylcarbonyloxy group having from 2 to 7 carbon atoms, such as acetyloxy, propionyloxy, i-propylcarbonyloxy, cyclopropylcarbonyloxy, n-butylcarbonyloxy, s-butylcarbonyloxy, t-butylcarbonyloxy, n-pentylcarbonyloxy, 2-pentylcarbonyloxy, neopentylcarbonyloxy, cyclopentylcarbonyloxy, and the like.

The "C2-C7 haloalkylcarbonyloxy group" represents, for example, a linear, branched, or cyclic alkylcarbonyloxy group having from 2 to 7 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other, such as trifluoroacetyloxy, pentafluoropropionyloxy, 2-chloropropionyloxy, 2,2,2-trifluoropropionyloxy, heptafluoro-n-propylcarbonyloxy, heptafluoro-1-propylcarbonyloxy, 1,1,1,3,3,3-hexafluoro-2-propylcarbonyloxy, 3-fluoro-n-propylcarbonyloxy, 1-chlorocyclopropylcarbonyloxy, 2-bromocyclopropylcarbonyloxy, 3,3,4,4,4-pentafluoro-2-butylcarbonyloxy, nonafluoro-n-butylcarbonyloxy, nonafluoro-2-butylcarbonyloxy, 5,5,5-trifluoro-n-pentylcarbonyloxy, 4,4,5,5,5-pentafluoro-2-pentylcarbonyloxy, 3-chloro-n-

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pentylcarbonyloxy, 4-bromo-2-pentylcarbonyloxy, 4-chlorobutylcarbonyloxy, 2-iodo-n-propylcarbonyloxy, and the like.

The "C2-C7 alkoxy carbonyl group" represents, for example, a linear, branched, or cyclic alkoxy carbonyl group having from 2 to 7 carbon atoms, such as methoxycarbonyl, ethoxycarbonyl, isopropoxycarbonyl, cyclopropoxycarbonyl, n-butoxycarbonyl, s-butoxycarbonyl, t-butoxycarbonyl, n-pentyloxycarbonyl, 2-pentyloxycarbonyl, neopentyloxycarbonyl, cyclopentyloxycarbonyl, and the like.

The "C2-C7 haloalkoxy carbonyl group" represents, for example, a linear, branched, or cyclic alkoxy carbonyl group having from 2 to 7 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other, such as trifluoromethoxycarbonyl, pentafluoroethoxycarbonyl, 2-chloroethoxycarbonyl, 2,2,2-trifluoroethoxycarbonyl, heptafluoro-n-propoxycarbonyl, heptafluoro-1-propoxycarbonyl, 1,1,1,3,3,3-hexafluoro-2-propoxycarbonyl, 3-fluoro-n-propoxycarbonyl, 1-chlorocyclopropoxycarbonyl, 2-bromocyclopropoxycarbonyl, 3,3,4,4,4-pentafluoro-2-butoxycarbonyl, nonafluoro-n-butoxycarbonyl, nonafluoro-2-butoxycarbonyl, 5,5,5-trifluoro-n-pentyloxycarbonyl, 4,4,5,5,5-pentafluoro-2-pentyloxycarbonyl, 3-chloro-n-pentyloxycarbonyl, 4-bromo-2-pentyloxycarbonyl, 4-chlorobutylloxycarbonyl, 2-iodo-n-propylloxycarbonyl, and the like.

The aryl group in the "arylcarbonyloxy group" and the "arylcarbonylamino group" represents, for example, a phenyl group, a naphthyl group, or the like.

The "C2-C7 alkylcarbonylamino group" represents, for example, a linear, branched, or cyclic alkylcarbonylamino group having from 2 to 7 carbon atoms, such as acetylamino, propionylamino, n-propylcarbonylamino, i-propylcarbonylamino, cyclopropylcarbonylamino, n-butylcarbonylamino, s-butylcarbonylamino, i-butylcarbonylamino, t-butylcarbonylamino, n-pentylcarbonylamino, i-pentylcarbonylamino, n-hexylcarbonylamino, cyclohexylcarbonylamino, and the like.

The "C2-C7 haloalkylcarbonylamino group" represents, for example, a linear, branched, or cyclic alkylcarbonylamino group having from 2 to 7 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other, such as trifluoroacetylamino, pentafluoropropionylamino, 2-chloropropionylamino, 2,2,2-trifluoropropionylamino, heptafluoro-n-propylcarbonylamino, heptafluoro-1-propylcarbonylamino, 1,1,1,3,3,3-hexafluoro-2-propylcarbonylamino, 3-fluoro-n-propylcarbonylamino, 1-chlorocyclopropylcarbonylamino, 2-bromocyclopropylcarbonylamino, 3,3,4,4,4-pentafluoro-2-butylcarbonylamino, nonafluoro-n-butylcarbonylamino, nonafluoro-2-butylcarbonylamino, 5,5,5-trifluoro-n-pentylcarbonylamino, 4,4,5,5,5-pentafluoro-2-pentylcarbonylamino, 3-chloro-n-pentylcarbonylamino, 4-bromo-2-pentylcarbonylamino, 4-chlorobutylcarbonylamino, 2-iodo-n-propylcarbonylamino, and the like.

The "C2-C7 alkoxy carbonylamino group" represents, for example, a linear, branched, or cyclic alkoxy carbonylamino group having from 2 to 7 carbon atoms, such as methoxycarbonylamino, ethoxycarbonylamino, n-propyloxycarbonylamino, i-propyloxycarbonylamino, cyclopropoxycarbonylamino, n-butoxycarbonylamino, s-butoxycarbonylamino, i-butoxycarbonylamino, t-butoxycarbonylamino, n-pentyloxycarbonylamino, i-pentyloxycarbonylamino, n-hexyloxycarbonylamino, cyclohexyloxycarbonylamino, and the like.

The "C2-C7 haloalkoxy carbonylamino group" represents, for example, a linear, branched, or cyclic alkoxy carbony-

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lamino group having from 2 to 7 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other, such as trifluoromethoxycarbonylamino, pentafluoroethoxycarbonylamino, 2-chloroethoxycarbonylamino, 2,2,2-trifluoroethoxycarbonylamino, heptafluoro-n-propoxycarbonylamino, heptafluoro-1-propoxycarbonylamino, 1,1,1,3,3,3-hexafluoro-2-propoxycarbonylamino, 3-fluoro-n-propoxycarbonylamino, 1-chlorocyclopropoxycarbonylamino, 2-bromocyclopropoxycarbonylamino, 3,3,4,4,4-pentafluoro-2-butoxycarbonylamino, nonafluoro-n-butoxycarbonylamino, nonafluoro-2-butoxycarbonylamino, 5,5,5-trifluoro-n-pentyloxycarbonylamino, 4,4,5,5,5-pentafluoro-2-pentyloxycarbonylamino, 3-chloro-n-pentyloxycarbonylamino, 4-bromo-2-pentyloxycarbonylamino, 4-chlorobutylloxycarbonylamino, 2-iodo-n-propylloxycarbonylamino, and the like.

The "C2-C7 alkoxy carbonyloxy group" represents, for example, a linear, branched, or cyclic alkoxy carbonyloxy group having from 2 to 7 carbon atoms, such as methoxycarbonyloxy, ethoxycarbonyloxy, n-propyloxycarbonyloxy, i-propyloxycarbonyloxy, cyclopropoxycarbonyloxy, n-butoxycarbonyloxy, s-butoxycarbonyloxy, i-butoxycarbonyloxy, t-butoxycarbonyloxy, n-pentyloxycarbonyloxy, i-pentyloxycarbonyloxy, n-hexyloxycarbonyloxy, cyclohexyloxycarbonyloxy, and the like.

The "C2-C7 haloalkoxy carbonyloxy group" represents, for example, a linear, branched, or cyclic alkoxy carbonyloxy group having from 2 to 7 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other, such as trifluoromethoxycarbonyloxy, pentafluoroethoxycarbonyloxy, 2-chloroethoxycarbonyloxy, 2,2,2-trifluoroethoxycarbonyloxy, heptafluoro-n-propoxycarbonyloxy, heptafluoro-1-propoxycarbonyloxy, 1,1,1,3,3,3-hexafluoro-2-propoxycarbonyloxy, 3-fluoro-n-propoxycarbonyloxy, 1-chlorocyclopropoxycarbonyloxy, 2-bromocyclopropoxycarbonyloxy, 3,3,4,4,4-pentafluoro-2-butoxycarbonyloxy, nonafluoro-n-butoxycarbonyloxy, nonafluoro-2-butoxycarbonyloxy, 5,5,5-trifluoro-n-pentyloxycarbonyloxy, 4,4,5,5,5-pentafluoro-2-pentyloxycarbonyloxy, 3-chloro-n-pentyloxycarbonyloxy, 4-bromo-2-pentyloxycarbonyloxy, 4-chlorobutylloxycarbonyloxy, 2-iodo-n-propylloxycarbonyloxy, and the like.

The "C1-C6 alkylamino group" represents, for example, a linear, branched, or cyclic alkylamino group having from 1 to 6 carbon atoms, such as methylamino, dimethylamino, ethylamino, diethylamino, n-propylamino, i-propylamino, cyclopropylamino, n-butylamino, s-butylamino, i-butylamino, t-butylamino, n-pentylamino, i-pentylamino, n-hexylamino, cyclohexylamino, and the like.

The "C1-C6 haloalkylamino group" represents, for example, a linear, branched, or cyclic alkylamino group having from 1 to 6 carbon atoms substituted with one or more halogen atoms which may be the same as or different from each other, such as trifluoromethylamino, ditrifluoromethylamino, pentafluoroethylamino, dipentafluoroethylamino, 2-chloroethylamino, 2,2,2-trifluoroethylamino, heptafluoro-n-propylamino, heptafluoro-1-propylamino, 1,1,1,3,3,3-hexafluoro-2-propylamino, 3-fluoro-n-propylamino, 1-chlorocyclopropylamino, 2-bromocyclopropylamino, 3,3,4,4,4-pentafluoro-2-butylamino, nonafluoro-n-butylamino, nonafluoro-2-butylamino, 5,5,5-trifluoro-n-pentylamino, 4,4,5,5,5-pentafluoro-2-pentylamino, 3-chloro-n-pentylamino, 4-bromo-2-pentylamino, 4-chlorobutylamino, 2-iodo-n-propylamino, and the like.

The "C2-C6 alkenyloxy group" represents, for example, an alkenyloxy group having from 2 to 6 carbon atoms, that has a

double bond in the carbon chain, such as vinyloxy, allyloxy, 2-butenyloxy, 3-butenyloxy, and the like.

The "C2-C6 haloalkenyloxy group" represents, for example, a linear or branched alkenyloxy group having from 2 to 6 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other and has a double bond in the carbon chain, such as 3,3-difluoro-2-propenyloxy, 3,3-dichloro-2-propenyloxy, 3,3-dibromo-2-propenyloxy, 2,3-dibromo-2-propenyloxy, 4,4-difluoro-3-butenyloxy, 3,4,4-tribromo-3-butenyloxy, and the like.

The "C2-C6 alkynyloxy group" represents, for example, an alkynyloxy group having from 2 to 6 carbon atoms, that has a triple bond in the carbon chain, such as propargyloxy, 1-butyne-3-yloxy, 1-butyne-3-methyl-3-yloxy, and the like.

The "C2-C6 haloalkynyloxy group" represents, for example, a linear or branched alkynyloxy group having from 2 to 6 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other and has a triple bond in the carbon chain, such as fluoroethynyloxy, chloroethynyloxy, bromoethynyloxy, 3,3,3-trifluoro-1-propynyloxy, 3,3,3-trichloro-1-propynyloxy, 3,3,3-tribromo-1-propynyloxy, 4,4,4-trifluoro-1-butyne-1-yloxy, 4,4,4-trichloro-1-butyne-1-yloxy, 4,4,4-tribromo-1-butyne-1-yloxy, and the like.

The "C3-C9 cycloalkoxy group" represents, for example, a cycloalkoxy group having from 3 to 9 carbon atoms, that has a cyclic structure, such as cyclopropyloxy, cyclobutyloxy, cyclopentyloxy, 2-methylcyclopentyloxy, 3-methylcyclopentyloxy, cyclohexyloxy, 2-methylcyclohexyloxy, 3-methylcyclohexyloxy, 4-methylcyclohexyloxy, and the like.

The "C3-C9 halocycloalkoxy group" represents, for example, a cycloalkoxy group having from 3 to 9 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other and has a cyclic structure, such as 2,2,3,3-tetrafluorocyclobutyloxy, 2-chlorocyclohexyloxy, 4-chlorocyclohexyloxy, and the like.

The "C2-C6 alkenylthio group" represents, for example, an alkenylthio group having from 2 to 6 carbon atoms, that has a double bond in the carbon chain, such as vinylthio, allylthio, 2-butenylthio, 3-butenylthio, and the like.

The "C2-C6 haloalkenylthio group" represents, for example, a linear or branched alkenylthio group having from 2 to 6 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other and has a double bond in the carbon chain, such as 3,3-difluoro-2-propenylthio, 3,3-dichloro-2-propenylthio, 3,3-dibromo-2-propenylthio, 2,3-dibromo-2-propenylthio, 4,4-difluoro-3-butenylthio, 3,4,4-tribromo-3-butenylthio, and the like.

The "C2-C6 alkynylthio group" represents, for example, an alkynylthio group having from 2 to 6 carbon atoms, that has a triple bond in the carbon chain, such as propargylthio, 1-butyne-3-ylthio, 1-butyne-3-methyl-3-ylthio, and the like.

The "C2-C6 haloalkynylthio group" represents, for example, a linear or branched alkynylthio group having from 2 to 6 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other and has a triple bond in the carbon chain.

The "C2-C6 alkenylsulfinyl group" represents, for example, an alkenylsulfinyl group having from 2 to 6 carbon atoms, that has a double bond in the carbon chain, such as vinylsulfinyl, allylsulfinyl, 2-butenylsulfinyl, 3-butenylsulfinyl, and the like.

The "C2-C6 haloalkenylsulfinyl group" represents, for example, a linear or branched alkenylsulfinyl group having from 2 to 6 carbon atoms, that is substituted with one or more

halogen atoms which may be the same as or different from each other and has a double bond in the carbon chain, such as 3,3-difluoro-2-propenylsulfinyl, 3,3-dichloro-2-propenylsulfinyl, 3,3-dibromo-2-propenylsulfinyl, 2,3-dibromo-2-propenylsulfinyl, 4,4-difluoro-3-butenylsulfinyl, 3,4,4-tribromo-3-butenylsulfinyl, and the like.

The "C2-C6 alkynylsulfinyl group" represents, for example, an alkynylsulfinyl group having from 2 to 6 carbon atoms, that has a triple bond in the carbon chain, such as propargylsulfinyl, 1-butyne-3-ylsulfinyl, 1-butyne-3-methyl-3-ylsulfinyl, and the like.

The "C2-C6 haloalkynylsulfinyl group" represents, for example, a linear or branched alkynylsulfinyl group having from 2 to 6 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other and has a triple bond in the carbon chain.

The "C3-C9 cycloalkylsulfinyl group" represents, for example, a cycloalkylsulfinyl group having from 3 to 9 carbon atoms, that has a cyclic structure, such as cyclopropylsulfinyl, cyclobutylsulfinyl, cyclopentylsulfinyl, 2-methylcyclopentylsulfinyl, 3-methylcyclopentylsulfinyl, cyclohexylsulfinyl, 2-methylcyclohexylsulfinyl, 3-methylcyclohexylsulfinyl, 4-methylcyclohexylsulfinyl, and the like.

The "C3-C9 halocycloalkylsulfinyl group" represents, for example, a cycloalkylsulfinyl group having from 3 to 9 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other and has a cyclic structure, such as 2,2,3,3-tetrafluorocyclobutylsulfinyl, 2-chlorocyclohexylsulfinyl, 4-chlorocyclohexylsulfinyl, and the like.

The "C2-C6 alkenylsulfonyl group" represents, for example, an alkenylsulfonyl group having from 2 to 6 carbon atoms, that has a double bond in the carbon chain, such as vinylsulfonyl, allylsulfonyl, 2-butenylsulfonyl, 3-butenylsulfonyl, and the like.

The "C2-C6 haloalkenylsulfonyl group" represents, for example, a linear or branched alkenylsulfonyl group having from 2 to 6 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other and has a double bond in the carbon chain, such as 3,3-difluoro-2-propenylsulfonyl, 3,3-dichloro-2-propenylsulfonyl, 3,3-dibromo-2-propenylsulfonyl, 2,3-dibromo-2-propenylsulfonyl, 4,4-difluoro-3-butenylsulfonyl, 3,4,4-tribromo-3-butenylsulfonyl, and the like.

The "C2-C6 alkynylsulfonyl group" represents, for example, an alkynylsulfonyl group having from 2 to 6 carbon atoms, that has a triple bond in the carbon chain, such as propargylsulfonyl, 1-butyne-3-ylsulfonyl, 1-butyne-3-methyl-3-ylsulfonyl, and the like.

The "C2-C6 haloalkynylsulfonyl group" represents, for example, a linear or branched alkynylsulfonyl group having from 2 to 6 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other and has a triple bond in the carbon chain.

The "C3-C9 cycloalkylsulfonyl group" represents, for example, a cycloalkylsulfonyl group having from 3 to 9 carbon atoms, that has a cyclic structure, such as cyclopropylsulfonyl, cyclobutylsulfonyl, cyclopentylsulfonyl, 2-methylcyclopentylsulfonyl, 3-methylcyclopentylsulfonyl, cyclohexylsulfonyl, 2-methylcyclohexylsulfonyl, 3-methylcyclohexylsulfonyl, 4-methylcyclohexylsulfonyl, and the like.

The "C3-C9 halocycloalkylsulfonyl group" represents, for example, a cycloalkylsulfonyl group having from 3 to 9 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other and has

a cyclic structure, such as 2,2,3,3-tetrafluorocyclobutylsulfonyl, 2-chlorocyclohexylsulfonyl, 4-chlorocyclohexylsulfonyl, and the like.

The "C3-C7 alkenylcarbonyl group" represents, for example, an alkenylcarbonyl group having from 3 to 7 carbon atoms, that has a double bond in the carbon chain, such as vinylcarbonyl, allylcarbonyl, 2-butenylcarbonyl, 3-butenylcarbonyl, and the like.

The "C3-C7 haloalkynylcarbonyl group" represents an alkenylcarbonyl group having from 3 to 7 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other and has a double bond in the carbon chain, such as 3,3-difluoro-2-propenylcarbonyl, 3,3-dichloro-2-propenylcarbonyl, 3,3-dibromo-2-propenylcarbonyl, 2,3-dibromo-2-propenylcarbonyl, 4,4-difluoro-3-butenylcarbonyl, 3,4,4-tribromo-3-butenylcarbonyl, and the like.

The "C3-C7 alkynylcarbonyl group" represents an alkynylcarbonyl group having from 3 to 7 carbon atoms and has a triple bond in the carbon chain, such as propargylcarbonyl, 1-butyne-3-ylcarbonyl, 1-butyne-3-methyl-3-ylcarbonyl, and the like.

The "C3-C7 haloalkynylcarbonyl group" represents, for example, a linear or branched alkynylcarbonyl group having from 3 to 7 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other and has a triple bond in the carbon chain, such as fluoroethynylcarbonyl, chloroethynylcarbonyl, bromoethynylcarbonyl, 3,3,3-trifluoro-1-propynylcarbonyl, 3,3,3-trichloro-1-propynylcarbonyl, 3,3,3-tribromo-1-propynylcarbonyl, 4,4,4-trifluoro-1-butyne-1-ylcarbonyl, 4,4,4-trichloro-1-butyne-1-ylcarbonyl, 4,4,4-tribromo-1-butyne-1-ylcarbonyl, and the like.

The "C4-C10 cycloalkylcarbonyl group" represents, for example, a cycloalkylcarbonyl group having from 4 to 10 carbon atoms, that has a cyclic structure, such as cyclopropylcarbonyl, cyclobutylcarbonyl, cyclopentylcarbonyl, 2-methylcyclopentylcarbonyl, 3-methylcyclopentylcarbonyl, cyclohexylcarbonyl, 2-methylcyclohexylcarbonyl, 3-methylcyclohexylcarbonyl, 4-methylcyclohexylcarbonyl, and the like.

The "C4-C10 halocycloalkylcarbonyl group" represents, for example, a cycloalkylcarbonyl group having from 4 to 10 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other and has a cyclic structure, such as 2,2,3,3-tetrafluorocyclobutylcarbonyl, 2-chlorocyclohexyl carbonyl, 4-chlorocyclohexyl carbonyl, and the like.

The "C3-C7 alkenyloxycarbonyl group" represents an alkenyloxycarbonyl group having from 3 to 7 carbon atoms, that has a double bond in the carbon chain, such as vinyloxycarbonyl, allyloxycarbonyl, 2-butenyloxycarbonyl, 3-butenyloxycarbonyl, and the like.

The "C3-C7 haloalkenyloxycarbonyl group" represents, for example, a linear or branched alkenyloxycarbonyl group having from 3 to 7 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other and has a double bond in the carbon chain, such as 3,3-difluoro-2-propenyloxycarbonyl, 3,3-dichloro-2-propenyloxycarbonyl, 3,3-dibromo-2-propenyloxycarbonyl, 2,3-dibromo-2-propenyloxycarbonyl, 4,4-difluoro-3-butenyloxycarbonyl, 3,4,4-tribromo-3-butenyloxycarbonyl, and the like.

The "C3-C7 alkynyloxycarbonyl group" represents, for example, an alkynyloxycarbonyl group having from 3 to 7 carbon atoms, that has a triple bond in the carbon chain, such

as propargyloxycarbonyl, 1-butyne-3-ylloxycarbonyl, 1-butyne-3-methyl-3-ylloxycarbonyl, and the like.

The "C3-C7 haloalkynyloxycarbonyl group" represents, for example, a linear or branched alkynyloxycarbonyl group having from 3 to 7 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other and has a triple bond in the carbon chain, such as fluoroethynyloxycarbonyl, chloroethynyloxycarbonyl, bromoethynyloxycarbonyl, 3,3,3-trifluoro-1-propynyloxycarbonyl, 3,3,3-trichloro-1-propynyloxycarbonyl, 3,3,3-tribromo-1-propynyloxycarbonyl, 4,4,4-trifluoro-1-butyne-1-ylloxycarbonyl, 4,4,4-trichloro-1-butyne-1-ylloxycarbonyl, 4,4,4-tribromo-1-butyne-1-ylloxycarbonyl, and the like.

The "C4-C10 cycloalkyloxycarbonyl group" represents, for example, a cycloalkyloxycarbonyl group having from 4 to 10 carbon atoms, that has a cyclic structure, such as cyclopropyloxycarbonyl, cyclobutyloxycarbonyl, cyclopentyloxycarbonyl, 2-methylcyclopentyloxycarbonyl, 3-methylcyclopentyloxycarbonyl, cyclohexyloxycarbonyl, 2-methylcyclohexyloxycarbonyl, 3-methylcyclohexyloxycarbonyl, 4-methylcyclohexyloxycarbonyl, and the like.

The "C4-C10 halocycloalkyloxycarbonyl group" represents, for example, a cycloalkyloxycarbonyl group having from 4 to 10 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other and has a cyclic structure, such as 2,2,3,3-tetrafluorocyclobutyloxycarbonyl, 2-chlorocyclohexyloxycarbonyl, 4-chlorocyclohexyloxycarbonyl, and the like.

The "C2-C6 alkenylamino group" represents, for example, an alkenylamino group having from 2 to 6 carbon atoms, that has a double bond in the carbon chain, such as vinylamino, allylamino, 2-butenylamino, 3-butenylamino, and the like.

The "C2-C6 haloalkenylamino group" represents a linear or branched alkenylamino group having from 2 to 6 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other and has a double bond in the carbon chain, such as 3,3-difluoro-2-propenylamino, 3,3-dichloro-2-propenylamino, 3,3-dibromo-2-propenylamino, 2,3-dibromo-2-propenylamino, 4,4-difluoro-3-butenylamino, 3,4,4-tribromo-3-butenylamino, and the like.

The "C2-C6 alkynylamino group" represents, for example, an alkynylamino group having from 2 to 6 carbon atoms, that has a triple bond in the carbon chain, such as propargylamino, 1-butyne-3-ylamino, 1-butyne-3-methyl-3-ylamino, and the like.

The "C2-C6 haloalkynylamino group" represents, for example, a linear or branched alkynylamino group having from 2 to 6 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other and has a triple bond in the carbon chain, such as fluoroethynylamino, chloroethynylamino, bromoethynylamino, 3,3,3-trifluoro-1-propynylamino, 3,3,3-trichloro-1-propynylamino, 3,3,3-tribromo-1-propynylamino, 4,4,4-trifluoro-1-butyne-1-ylamino, 4,4,4-trichloro-1-butyne-1-ylamino, 4,4,4-tribromo-1-butyne-1-ylamino, and the like.

The "C3-C9 cycloalkylamino group" represents, for example, a cycloalkyl group amino having from 3 to 9 carbon atoms, that has a cyclic structure, such as cyclopropylamino, cyclobutylamino, cyclopentylamino, 2-methylcyclopentylamino, 3-methylcyclopentylamino, cyclohexylamino, 2-methylcyclohexylamino, 3-methylcyclohexylamino, 4-methylcyclohexylamino, and the like.

The "C3-C9 halocycloalkylamino group" represents, for example, a cycloalkylamino group having from 3 to 9 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other and has

a cyclic structure, such as 2,2,3,3-tetrafluorocyclobutylamino, 2-chlorocyclohexylamino, 4-chlorocyclohexylamino, and the like.

The "C2-C7 alkylaminocarbonyl group" represents, for example, a linear or branched alkylaminocarbonyl group having from 2 to 7 carbon atoms, such as methylaminocarbonyl, ethylaminocarbonyl, n-propylaminocarbonyl, i-propylaminocarbonyl, n-butylaminocarbonyl, s-butylaminocarbonyl, t-butylaminocarbonyl, n-pentylaminocarbonyl, 2-pentylaminocarbonyl, neopentylaminocarbonyl, 4-methyl-2-pentylaminocarbonyl, n-hexylaminocarbonyl, 3-methyl-n-pentylaminocarbonyl, and the like.

The "C2-C7 haloalkylaminocarbonyl group" represents, for example, a linear or branched alkylaminocarbonyl group having from 2 to 7 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other, such as trifluoromethylaminocarbonyl, pentafluoroethylaminocarbonyl, heptafluoro-n-propylaminocarbonyl, heptafluoro-1-propylaminocarbonyl, 2,2-difluoroethylaminocarbonyl, 2,2-dichloroethylaminocarbonyl, 2,2,2-trifluoroethylaminocarbonyl, 2-fluoroethylaminocarbonyl, 2-chloroethylaminocarbonyl, 2-bromoethylaminocarbonyl, 2-iodoethylaminocarbonyl, 2,2,2-trichloroethylaminocarbonyl, 2,2,2-tribromoethylaminocarbonyl, 1,3-difluoro-2-propylaminocarbonyl, 1,3-dichloro-2-propylaminocarbonyl, 1-chloro-3-fluoro-2-propylaminocarbonyl, 1,1,1-trifluoro-2-propylaminocarbonyl, 2,3,3,3-trifluoro-n-propylaminocarbonyl, 4,4,4-trifluoro-n-butylaminocarbonyl, 1,1,1,3,3,3-hexafluoro-2-propylaminocarbonyl, 1,1,1,3,3,3-hexafluoro-2-chloro-2-propylaminocarbonyl, 1,1,1,3,3,3-hexafluoro-2-bromo-2-propylaminocarbonyl, 1,1,2,3,3,3-hexafluoro-2-chloro-n-propylaminocarbonyl, 1,1,2,3,3,3-hexafluoro-2-bromo-n-propylaminocarbonyl, 1,1,2,3,3,3-hexafluoro-1-bromo-2-propylaminocarbonyl, 2,2,3,3,3-pentafluoro-n-propylaminocarbonyl, 3-fluoro-n-propylaminocarbonyl, 3-chloro-n-propylaminocarbonyl, 3-bromo-n-propylaminocarbonyl, 3,3,4,4,4-pentafluoro-2-butylaminocarbonyl, nonafluoro-n-butylaminocarbonyl, nonafluoro-2-butylaminocarbonyl, 5,5,5-trifluoro-n-pentylaminocarbonyl, 4,4,5,5,5-pentafluoro-2-pentylaminocarbonyl, 3-chloro-n-pentylaminocarbonyl, 4-bromo-2-pentylaminocarbonyl, and the like.

The "C3-C7 alkenylaminocarbonyl group" represents, for example, an alkenylaminocarbonyl group having from 3 to 7 carbon atoms, that has a double bond in the carbon chain, such as vinylaminocarbonyl, allylaminocarbonyl, 2-butenylaminocarbonyl, 3-butenylaminocarbonyl, and the like.

The "C3-C7 haloalkenylaminocarbonyl group" represents, for example, a linear or branched alkenylaminocarbonyl group having from 3 to 7 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other and has a double bond in the carbon chain, such as 3,3-difluoro-2-propenylaminocarbonyl, 3,3-dichloro-2-propenylaminocarbonyl, 3,3-dibromo-2-propenylaminocarbonyl, 2,3-dibromo-2-propenylaminocarbonyl, 4,4-difluoro-3-butenylaminocarbonyl, 3,4,4-tribromo-3-butenylaminocarbonyl, and the like.

The "C3-C7 alkynylaminocarbonyl group" represents, for example, an alkynylaminocarbonyl group having from 3 to 7 carbon atoms, that has a triple bond in the carbon chain, such as propargylaminocarbonyl, 1-butyne-3-ylaminocarbonyl, 1-butyne-3-methyl-3-ylaminocarbonyl, and the like.

The "C3-C7 haloalkynylaminocarbonyl group" represents, for example, a linear or branched alkynylaminocarbonyl group having from 3 to 7 carbon atoms, that is substituted with one or more halogen atoms which may be the same as or different from each other and has a triple bond in the carbon

chain, such as fluoroethynylaminocarbonyl, chloroethynylaminocarbonyl, bromoethynylaminocarbonyl, 3,3,3-trifluoro-1-propynylaminocarbonyl, 3,3,3-trichloro-1-propynylaminocarbonyl, 3,3,3-tribromo-1-propynylaminocarbonyl, 4,4,4-trifluoro-1-butyneaminocarbonyl, 4,4,4-trichloro-1-butyneaminocarbonyl, 4,4,4-tribromo-1-butyneaminocarbonyl, and the like.

The "C4-C10 cycloalkylaminocarbonyl group" represents, for example, a cycloalkylaminocarbonyl group having from 4 to 10 carbon atoms, that has a cyclic structure, such as cyclopropylaminocarbonyl, cyclobutylaminocarbonyl, cyclopentylaminocarbonyl, 2-methylcyclopentylaminocarbonyl, 3-methylcyclopentylaminocarbonyl, cyclohexylaminocarbonyl, 2-methylcyclohexylaminocarbonyl, 3-methylcyclohexylaminocarbonyl, 4-methylcyclohexylaminocarbonyl, and the like.

The "C4-C10 halocycloalkylaminocarbonyl group" represents, for example, a cycloalkylaminocarbonyl group having from 4 to 10 carbon atoms that is substituted with one or more halogen atoms which may be the same as or different from each other and has a cyclic structure, such as 2,3,3-tetrafluorocyclobutylaminocarbonyl, 2-chlorocyclohexylaminocarbonyl, 4-chlorocyclohexylaminocarbonyl, and the like.

The substituents of the "C1-C6 alkyl group which may have a substituent", the "C1-C6 haloalkyl group which may have a substituent", the "C3-C9 cycloalkyl group which may have a substituent", the "C3-C9 halocycloalkyl group which may have a substituent", the "C2-C6 alkenyl group which may have a substituent", the "C2-C6 haloalkenyl group which may have a substituent", the "C2-C6 alkynyl group which may have a substituent", the "C2-C6 haloalkynyl group which may have a substituent", the "C1-C6 alkoxy group which may have a substituent", the "C1-C6 haloalkoxy group which may have a substituent", the "C1-C6 haloalkylthio group which may have a substituent", the "C2-C6 alkenylthio group which may have a substituent", the "C2-C6 haloalkenylthio group which may have a substituent", the "C2-C6 haloalkynylthio group which may have a substituent", the "C2-C6 haloalkynylthio group which may have a substituent", the "C1-C6 alkylsulfinyl group which may have a substituent", the "C1-C6 haloalkylsulfinyl group which may have a substituent", the "C2-C6 alkenylsulfinyl group which may have a substituent", the "C2-C6 haloalkenylsulfinyl group which may have a substituent", the "C2-C6 alkynylsulfinyl group which may have a substituent", the "C2-C6 haloalkynylsulfinyl group which may have a substituent", the "C3-C9 cycloalkylsulfinyl group which may have a substituent", the "C3-C9 halocycloalkylsulfinyl group which may have a substituent", the "C1-C6 alkylsulfonyl group which may have a substituent", the "C1-C6 haloalkylsulfonyl group which may have a substituent", the "C2-C6 alkenylsulfonyl group which may have a substituent", the "C2-C6 haloalkenylsulfonyl group which may have a substituent", the "C2-C6 alkynylsulfonyl group which may have a substituent", the "C2-C6 haloalkynylsulfonyl group which may have a substituent", the "C3-C9 cycloalkylsulfonyl group which may have a substituent", the "C3-C9 halocycloalkylsulfonyl group which may have a substituent", the "C1-C6 alkylsulfonyloxy group which may have a substituent", the "C1-C6 haloalkylsulfonyloxy group which may have a substituent", the "C2-C7 alkylcarbonyl group which may have a substituent", the "C2-C7 haloalkylcarbonyl group which may have a substituent", the "C2-C7 alkoxy carbonyl group which may have a substituent", the "C2-C7 haloalkoxy carbonyl group which may have a substituent", the "C2-C7 alkylcarbonylamino group which may have a substituent", the "C2-C7 haloalkylcarbonylamino

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group which may have a substituent", the "C2-C7 alkoxy-carbonylamino group which may have a substituent", the "C2-C7 haloalkoxy-carbonylamino group which may have a substituent", the "C2-C6 alkenyloxy group which may have a substituent", the "C2-C6 haloalkenyloxy group which may have a substituent", the "C2-C6 alkynyloxy group which may have a substituent", the "C2-C6 haloalkynyloxy group which may have a substituent", the "C3-C9 cycloalkoxy group which may have a substituent", the "C3-C9 halocycloalkoxy group which may have a substituent", the "C3-C7 alkenyl-carbonyl group which may have a substituent", the "C3-C7 haloalkenyl-carbonyl group which may have a substituent", the "C3-C7 alkynyl-carbonyl group which may have a substituent", the "C3-C7 haloalkynyl-carbonyl group which may have a substituent", the "C4-C10 cycloalkyl-carbonyl group which may have a substituent", the "C4-C10 halocycloalkyl-carbonyl group which may have a substituent", the "C3-C7 alkenyloxy-carbonyl group which may have a substituent", the "C3-C7 haloalkenyloxy-carbonyl group which may have a substituent", the "C3-C7 alkynyloxy-carbonyl group which may have a substituent", the "C3-C7 haloalkynyloxy-carbonyl group which may have a substituent", the "C4-C10 cycloalkyloxy-carbonyl group which may have a substituent", the "C4-C10 halocycloalkyloxy-carbonyl group which may have a substituent", the "C1-C6 alkylamino group which may have a substituent", the "C1-C6 haloalkylamino group which may have a substituent", the "C2-C6 alkenylamino group which may have a substituent", the "C2-C6 haloalkeny-lamino group which may have a substituent", the "C2-C6 alkynylamino group which may have a substituent", the "C2-C6 haloalkyny-lamino group which may have a substituent", the "C3-C9 cycloalkylamino group which may have a substituent", the "C3-C9 halocycloalkylamino group which may have a substituent", the "C2-C7 alkylaminocarbonyl group which may have a substituent", the "C2-C7 haloalkylami-nocarbonyl group which may have a substituent", the "C3-C7 alkenylaminocarbonyl group which may have a substituent", the "C3-C7 haloalkenylaminocarbonyl group which may have a substituent", the "C3-C7 alkynylaminocarbonyl group which may have a substituent", the "C3-C7 haloalkynylami-nocarbonyl group which may have a substituent", the "C4-C10 cycloalkylaminocarbonyl group which may have a substituent", and the "C4-C10 halocycloalkylaminocarbonyl group which may have a substituent" each represents one or more substituents selected from a group consisting of:

a halogen atom, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C3-C9 cycloalkyl group, a C3-C9 halocycloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a C2-C7 alkylcarbonyl group, a C2-C7 haloalkylcar-bonyl group, a C2-C7 alkylcarbonyloxy group, a C2-C7 haloalkylcarbonyloxy group, a C1-C6 alkylsulfonyloxy group, a C1-C6 haloalkylsulfonyloxy group, a C2-C7 alkoxy-carbonyl group, a C2-C7 haloalkoxy-carbonyl group, a C2-C7 alkylcarbonylamino group, a C2-C7 haloalkylcarbonylamino group, a C2-C7 alkylaminocarbonyl group, a C2-C7 haloalkylaminocarbonyl group, a C2-C7 alkoxy-carbony-lamino group, a C2-C7 haloalkoxy-carbonylamino group, a C1-C6 alkylamino group, a C1-C6 haloalkylamino group, an amino group, a carbamoyl group, a sulfamoyl group, a cyano group, a nitro group, a hydroxy group, a carboxyl group, a pentafluorosulfanyl group, a benzyloxy group which may have a substituent, a benzyloxy-carbonyl group which may

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have a substituent, a phenyl group which may have a substituent, a heterocyclic group which may have a substituent, a benzyl group which may have a substituent, a phenylcarbonyl group which may have a substituent, and a phenylamino group which may have a substituent, and in a case where there are two or more substituents, each substituent may be the same as or different from each other.

Furthermore, the substituent in the present invention may have a further substituent, and examples of the substituent include those as described above.

The compound represented by the Formula (1) according to the present invention may include one or plural chiral carbon atoms or chiral centers in their structural Formulae, and thus two or more optical isomers may exist. However, the present invention includes each of the optical isomers and a mixture thereof at any proportions. Further, the compounds represented by the Formula (1) according to the present invention may include two or more kinds of geometrical isomers derived from carbon-carbon double bonds in the structural Formula e. However, the present invention includes each of the geometrical isomers and a mixture thereof at any proportions.

The preferred substituents and the like for the compounds represented by the Formula (1) and the like according to the present invention are as follows.

T is preferably $\text{—C(=G}_1\text{)—Q}_1$, G_1 is preferably an oxygen atom, Q_1 is preferably a phenyl group which may have a substituent, or a pyridyl group which may have a substituent, and Q_1 more preferably has one or more substituents selected from a group consisting of a halogen atom, a C1 haloalkyl group, a nitro group, and a cyano group, and in a case where there are two or more substituents, each substituent is a phenyl group or a pyridyl group, which may be the same as or different from each other.

A represents preferably a carbon atom, K is preferably a non-metal atom group, that forms benzene together with A and two carbon atoms to which A bonds.

X represents preferably a hydrogen atom, a halogen atom, a nitro group, or a cyano group, and more preferably a hydrogen atom or a fluorine atom.

n represents preferably 4.

Q_2 represents preferably a phenyl group which may have a substituent, represented by the Formula (2).

G_3 represents preferably an oxygen atom.

The representative methods for producing the compound according to the present invention are shown below, and according to them, the compound according to the present invention can be prepared, but the pathways for the preparation methods are not limited to the preparation methods below.

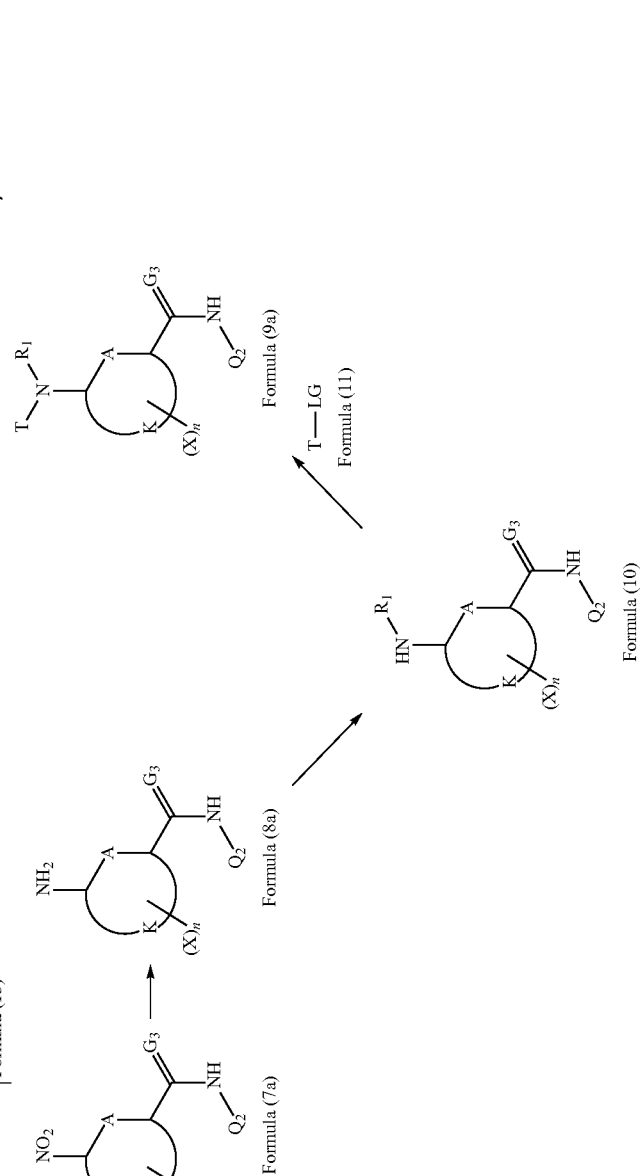
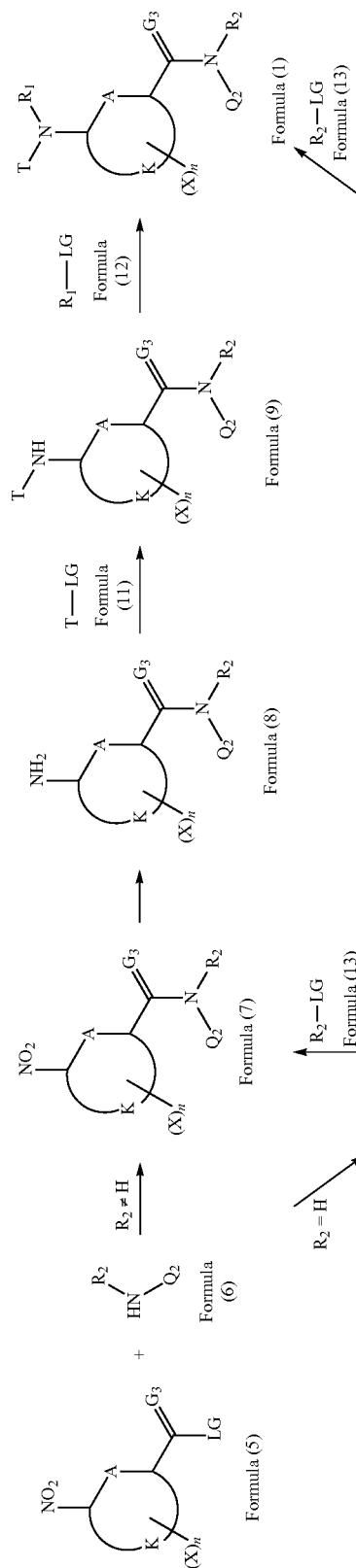
In the Formulae shown in the following preparation method, A, K, X, n, R_2 , Q_2 , T, and R_1 have the same definitions as A, K, X, n, R_2 , Q_2 , T, and R_1 , respectively, in the Formula (1).

Furthermore, LG represents a functional group having a leaving ability, such as a halogen atom, a hydroxy group, or the like.

Also, each of R_3 , R_4 , R_5 , R_6 , R_7 , and R_8 represents a hydrogen atom, a C1-C6 alkyl group which may have a substituent, a C1-C6 haloalkyl group which may have a substituent, a C2-C6 alkenyl group which may have a substituent, a C2-C6 haloalkenyl group which may have a substituent, a

C2-C6 alkynyl group which may have a substituent, a C2-C6 haloalkynyl group which may have a substituent, a C3-C9 cycloalkyl group which may have a substituent, a C3-C9 halocycloalkyl group which may have a substituent, a phenyl group which may have a substituent, a naphthyl group which may have a substituent, or a heterocyclic group which may have a substituent.

PREPARATION METHOD 1



Step 1-(i): Formula (5)+Formula (6)→Formula (7)

Formula (5)+Formula (6)→Formula (7a)

A nitro aromatic carboxamide derivative represented by the Formula (7) or the Formula (7a) can be prepared by reacting a nitro aromatic carboxylic acid derivative represented by the Formula (5) with an aromatic amine derivative represented by the Formula (6) in a suitable solvent. In the present step, a suitable base can be used. The solvent may be any of those which do not inhibit the reaction significantly, and examples thereof may include aromatic hydrocarbons such as benzene, toluene, xylene, and the like, halogenated hydrocarbons such as dichloromethane, chloroform, carbon tetrachloride, and the like, chained or cyclic ethers such as diethyl ether, dioxane, tetrahydrofuran, 1,2-dimethoxy ethane, and the like, esters such as ethyl acetate, butyl acetate, and the like, ketones such as acetone, methyl isobutyl ketone, cyclohexanone, and the like, amides such as dimethyl formamide, dimethylacetamide, and the like, nitriles such as acetonitrile and the like, and inert solvents such as 1,3-dimethyl-2-imidazolidinone and the like. These solvents may be used alone or as a mixture of two or more kinds thereof.

Furthermore, examples of the base may include organic bases such as triethylamine, tri-n-butyl amine, pyridine, 4-dimethylamino pyridine, and the like, alkali metal hydroxides such as sodium hydroxide, potassium hydroxide, and the like, carbonates such as sodium hydrogen carbonate, potassium carbonate, and the like, phosphates such as dipotassium monohydrogen phosphate, trisodium phosphate, and the like, alkali metal hydride salts such as sodium hydride and the like, alkali metal alkoxides such as sodium methoxide, sodium ethoxide, and the like, and lithium amides such as lithium diisopropyl amide, and the like. These bases may be appropriately used in an amount in the range from 0.01-fold molar equivalent to 5-fold molar equivalents with respect to the compound represented by the Formula (6). The reaction temperature may be appropriately selected from -20° C. to the reflux temperature of the solvent used. Further, the reaction time may be appropriately selected within the range from several minutes to 96 hours.

Among the Formula (5), the nitro aromatic carboxyl chloride derivative can be prepared easily by a usual method using a halogenating agent from the nitro aromatic carboxylic acid derivative. Examples of the halogenating agent include thionyl chloride, thionyl bromide, phosphorus oxychloride, oxalyl chloride, phosphorus trichloride, and the like.

Meanwhile, examples of the method for producing the compound represented by the Formula (7) or the Formula (7a) from the nitro aromatic carboxylic acid derivative and the compound represented by the Formula (6) without using a halogenating agent may include a method described in Chem. Ber. p. 788 (1970), in which a condensing agent such as N,N-dicyclohexylcarbodiimide and the like is appropriately used, suitably with a use of an additive such as 1-hydroxybenzotriazole and the like.

Examples of other condensing agents may include 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide, 1,1'-carbonylbis-1H-imidazole, and the like.

Furthermore, examples of other methods above may include a mixed anhydride method using chloroformic acid esters, and a method described in J. Am. Chem. Soc., p. 5012 (1967), whereby the compound represented by the Formula (7) or the Formula (7a) can be used. Examples of the chloroformic acid esters may include isobutyl chloroformate, isopropyl chloroformate and the like. In addition to chloroformic acid esters, diethylacetyl chloride, trimethylacetyl chloride and the like may also be included. Both the method using a condensing agent and the mixed anhydride method are not

limited to the solvent, the reaction temperature, and the reaction time according to the literature above. An inert solvent may be used which does not inhibit the appropriate reaction significantly, and the reaction temperature and the reaction time may also be selected appropriately according to the proceeding of the reaction.

Step 1-(ii): Formula (7)→Formula (8)

Formula (7a)→Formula (8a)

An aromatic carboxamide derivative having an amino group represented by the Formula (8) or the Formula (8a) can be derived from the aromatic carboxamide derivative having a nitro group represented by the Formula (7) or the Formula (7a) by means of reduction. Examples of such reduction include a method using a hydrogenation reaction and a method using stannous chloride (anhydride) and the like. The reaction of the former method can be carried out in a suitable solvent in the presence of a catalyst at atmospheric pressure or a higher pressure under a hydrogen atmosphere. Examples of the catalyst may include palladium catalysts such as palladium-carbon and the like, nickel catalysts such as Raney-nickel and the like, cobalt catalysts, ruthenium catalysts, rhodium catalysts, platinum catalysts, and the like, and examples of the solvent may include water, alcohols such as methanol, ethanol, and the like, aromatic hydrocarbons such as benzene, toluene, and the like, chained or cyclic ethers such as ether, dioxane, tetrahydrofuran, and the like, and esters such as ethyl acetate and the like. The reaction temperature may be appropriately selected within a range of -20° C. to the reflux temperature of the solvent used, and the reaction time may be appropriately selected within a range of several minutes to 96 hours, whereby the compound of the Formula (8) or the Formula (8a) can be prepared.

For the latter method, although not being limited to the condition, by using the conditions described in, for example, "Organic Syntheses" Coll. Vol. III, P. 453, the compound of the Formula (8) or the Formula (8a) can be prepared.

Step 1-(iii): Formula (8)+Formula (11)→Formula (9)

An aromatic carboxamide or carbamate derivative represented by the Formula (9) can be prepared by reacting the aromatic amine derivative represented by the Formula (8) with the carboxylic acid derivative or the carbonate ester derivative having a leaving group represented by the Formula (11) in a suitable solvent. In the present step, a suitable base or solvent can be used, and as the base or solvent, those exemplified in 1-(i) can be used. Examples of the reaction temperature, the reaction time, and the like may include those exemplified in 1-(i).

In the Formula (11), the carboxylic acid chloride derivative can be prepared easily from a carboxylic acid derivative by a usual method using a halogenating agent. Examples of the halogenating agent may include those exemplified in 1-(i).

Examples of this method include a method for producing a compound represented by the Formula (9) from the carboxylic acid derivative (11) and the compound represented by the Formula (8) without the use of a halogenating agent, and the preparation can be conducted according to the method exemplified in 1-(i).

Step 1-(iv): Formula (9)+Formula (12)→Formula (1)

The compound represented by the Formula (1) according to the present invention can be prepared by reacting the amide compound represented by the Formula (9) with the compound having a leaving group such as halogen and the like, represented by the Formula (12) in a solvent or without a solvent. In the present step, a suitable base or solvent can be used, and as the base or solvent, those exemplified in 1-(i) can be used. Examples of the reaction temperature, the reaction time, and the like may include those exemplified in 1-(i).

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Step 1-(v): Formula (7a)+Formula (13)→Formula (7)

A compound represented by the Formula (7) can be prepared by reacting the amide compound represented by the Formula (7a) with the compound having a leaving group such as halogen and the like, represented by the Formula (13) in a solvent or without a solvent. In the present step, a suitable base or solvent can be used, and as the base or solvent, those exemplified in 1-(i) can be used. Examples of the reaction temperature, the reaction time, and the like may include those exemplified in 1-(i).

Step 1-(vi): Formula (8a)→Formula (10)
(Method A)

A compound represented by the Formula (10) can be prepared by reacting the compound represented by the Formula (8a) with an aldehyde or a ketone in a suitable solvent, and reacting them under a hydrogen atmosphere with the addition of a suitable catalyst.

The solvent may be any of those which do not inhibit the reaction significantly, and examples thereof may include aliphatic hydrocarbons such as hexane, cyclohexane, methylcyclohexane, and the like, aromatic hydrocarbons such as benzene, xylene, toluene, and the like, halogenated hydrocarbons such as dichloromethane, chloroform, carbon tetrachloride, 1,2-dichloroethane, and the like, ethers such as diethyl ether, dioxane, tetrahydrofuran, 1,2-dimethoxy ethane, and the like, amides such as dimethyl formamide, dimethylacetamide, and the like, nitriles such as acetonitrile, propionitrile, and the like, esters such as ethyl acetate, butyl acetate, and the like, alcohols such as 1,3-dimethyl-2-imidazolidinone, methanol, ethanol, and the like, and water. These solvents may be used alone or as a mixture of two or more kinds thereof.

Examples of the catalyst may include palladium catalysts such as palladium-carbon, palladium hydroxide-carbon, and the like, nickel catalysts such as Raney-nickel and the like, cobalt catalysts, platinum catalysts, ruthenium catalysts, rhodium catalysts, and the like.

Examples of the aldehyde may include formaldehyde, acetaldehyde, propionaldehyde, trifluoroacetaldehyde, difluoroacetaldehyde, fluoroacetaldehyde, chloroacetaldehyde, dichloroacetaldehyde, trichloroacetaldehyde, bromoacetaldehyde, and the like.

Examples of the ketone may include acetone, perfluoroacetone, methyl ethyl ketone, and the like.

The reaction pressure may be appropriately selected within the range of 1 atm to 100 atm. The reaction temperature may be appropriately selected within the range from -20° C. to the reflux temperature of the solvent used. Further, the reaction time may be appropriately selected within the range from several minutes to 96 hours.

(Method B)

A compound represented by the Formula (10) can be prepared by reacting the compound represented by the Formula (8a) with an aldehyde or a ketone in a suitable solvent, and treating the product with a suitable reducing agent.

The solvent may be any of those which do not inhibit the reaction significantly, and examples thereof may include aliphatic hydrocarbons such as hexane, cyclohexane, methylcyclohexane, and the like, aromatic hydrocarbons such as benzene, xylene, toluene, and the like, halogenated hydrocarbons such as dichloromethane, chloroform, carbon tetrachloride, 1,2-dichloroethane, and the like, ethers such as diethyl ether, dioxane, tetrahydrofuran, 1,2-dimethoxy ethane, and the like, amides such as dimethyl formamide, dimethylacetamide, and the like, nitriles such as acetonitrile, propionitrile, and the like, esters such as ethyl acetate, butyl acetate, and the like, alcohols such as 1,3-dimethyl-2-imidazolidinone, methanol,

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ethanol, and the like, water, and the like. These solvents may be used alone or as a mixture of two or more kinds thereof.

Examples of the reducing agent may include borohydrides such as sodium borohydride, sodium cyanoborohydride, sodium triacetate borohydride, and the like.

Examples of the aldehydes may include formaldehyde, acetaldehyde, propionaldehyde, trifluoroacetaldehyde, difluoroacetaldehyde, fluoroacetaldehyde, chloroacetaldehyde, dichloroacetaldehyde, trichloroacetaldehyde, bromoacetaldehyde, and the like.

Examples of the ketones may include acetone, perfluoroacetone, methyl ethyl ketone, and the like.

The reaction temperature may be appropriately selected within the range from -20° C. to the reflux temperature of the solvent used. Further, the reaction time may be appropriately selected within the range from several minutes to 96 hours.

(Method C)

A compound of the Formula (10) can be prepared by reacting the compound represented by the Formula (8a) with an aldehyde in a solvent or without a solvent.

The solvent may be any of those which do not inhibit the reaction significantly, and examples thereof may include aliphatic hydrocarbons such as hexane, cyclohexane, methylcyclohexane, and the like, aromatic hydrocarbons such as benzene, xylene, toluene, and the like, halogenated hydrocarbons such as dichloromethane, chloroform, carbon tetrachloride, 1,2-dichloroethane, and the like, ethers such as diethyl ether, dioxane, tetrahydrofuran, 1,2-dimethoxy ethane, and the like, amides such as dimethyl formamide, dimethylacetamide, and the like, nitriles such as acetonitrile, propionitrile, and the like, ketones such as acetone, methyl isobutyl ketone, cyclohexanone, methyl ethyl ketone, and the like, esters such as ethyl acetate, butyl acetate, and the like, alcohols such as methanol, ethanol, and the like, 1,3-dimethyl-2-imidazolidinone, sulfolane, dimethylsulfoxide, inorganic acids such as sulfuric acid, hydrochloric acid, and the like, organic acids such as formic acid, acetic acid, and the like, water, and the like. These solvents may be used alone or as a mixture of two or more kinds thereof.

Examples of the aldehydes may include formaldehyde, acetaldehyde, propionaldehyde, and the like.

The reaction temperature may be appropriately selected within the range from -20° C. to the reflux temperature of the solvent used, and the reaction time may be appropriately selected within the range from several minutes to 96 hours.

Step 1-(vii): Formula (10)+Formula (11)→Formula (9a)

An aromatic carboxamide or carbamate derivative represented by the Formula (9a) can be prepared by reacting the aromatic amine derivative represented by the Formula (10) with the carboxylic acid derivative or the carbonate ester derivative having a leaving group represented by the Formula (11) in a suitable solvent. In the present step, a suitable base or solvent can be used, and as the base or solvent, those exemplified in 1-(i) can be used. Examples of the reaction temperature, the reaction time, and the like may include those exemplified in 1-(i).

In the Formula (11), the carboxylic acid chloride derivative can be prepared easily from a carboxylic acid derivative by a usual method using a halogenating agent. Examples of the halogenating agent may include those exemplified in 1-(i).

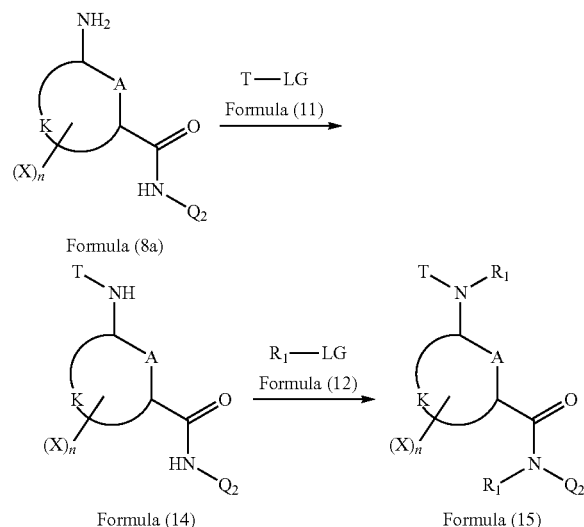
Examples of this method include a method for producing a compound represented by the Formula (9a) from the carboxylic acid derivative (11) and the compound represented by the Formula (10) without the use of a halogenating agent, and the preparation can be conducted according to the method exemplified in 1-(i).

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Step 1-(viii): Formula (9a)+Formula (13)→Formula (1)

The compound represented by the Formula (1) according to the present invention can be prepared by reacting the amide compound represented by the Formula (9a) with the compound having a leaving group such as halogen and the like, represented by the Formula (13) in a solvent or without a solvent. In the present step, a suitable base or solvent can be used, and as the base or solvent, those exemplified in 1-(i) can be used. Examples of the reaction temperature, the reaction time, and the like may include those exemplified in 1-(i).

PREPARATION METHOD 2



Step 2-(i): Formula (8a)+Formula (11)→Formula (14)

An aromatic carboxamide or carbamate derivative represented by the Formula (14) can be prepared by reacting the aromatic amine derivative represented by the Formula (8a) with the carboxylic acid derivative or the carbonate ester derivative having a leaving group represented by the Formula (11) in a suitable solvent. In the present step, a suitable base or solvent can be used, and as the base or solvent, those exemplified in 1-(i) can be used. Examples of the reaction temperature, the reaction time, and the like may include those exemplified in 1-(i).

In the Formula (11), the carboxylic acid chloride derivative can be prepared easily from a carboxylic acid derivative by a usual method using a halogenating agent. Examples of the halogenating agent may include those exemplified in 1-(i).

Examples of this method include a method for producing a compound represented by the Formula (14) from the carboxylic acid derivative (11) and the compound represented by the Formula (8a) without the use of a halogenating agent, and the preparation can be conducted according to the method exemplified in 1-(i).

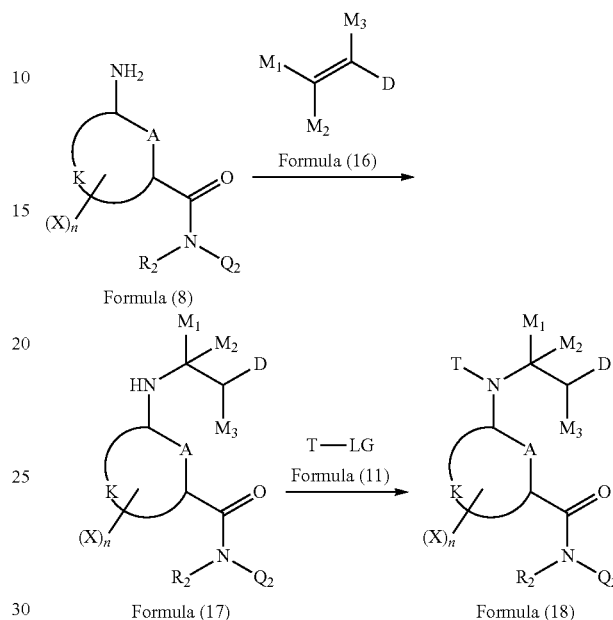
Step 2-(ii): Formula (14)+Formula (12)→Formula (15)

The compound represented by the Formula (15) according to the present invention can be prepared by reacting the amide compound represented by the Formula (14) with the compound having a leaving group such as halogen and the like, represented by the Formula (12) in a solvent or without a solvent. In the present step, a suitable base or solvent can be used, and as the base or solvent, those exemplified in 1-(i) can

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be used. Examples of the reaction temperature, the reaction time, and the like may include those exemplified in 1-(i).

PREPARATION METHOD 3



Step 3-(i): Formula (8)+Formula (16)→Formula (17)

A compound represented by the Formula (17) can be prepared by reacting the aromatic amine derivative represented by the Formula (8) with an olefin derivative represented by the Formula (16) in a solvent or without a solvent.

The solvent used in the present reaction may be any of those which do not inhibit the present reaction significantly, and examples thereof may include aromatic hydrocarbons such as benzene, toluene, xylene, and the like, halogenated hydrocarbons such as dichloromethane, chloroform, carbon tetrachloride, and the like, chained or cyclic ethers such as diethyl ether, dioxane, tetrahydrofuran, 1,2-dimethoxy ethane, and the like, esters such as ethyl acetate, butyl acetate, and the like, ketones such as acetone, methyl isobutyl ketone, cyclohexanone, and the like, amides such as dimethyl formamide, dimethylacetamide, and the like, nitriles such as acetonitrile and the like, inert solvents such as 1,3-dimethyl-2-imidazolidinone, and the like, organic acids such as formic acid, acetic acid, propionic acid, butyric acid, and the like, and mineral acids such as hydrochloric acid, phosphoric acid, sulfuric acid, and the like. These solvents may be used alone or as a mixture of two or more kinds thereof.

A catalyst may be added in the present reaction, and examples of the catalyst used include organic bases such as triethylamine, tri-n-butyl amine, pyridine, 4-dimethylamino pyridine, N-benzyl trimethyl ammonium hydroxide (Triton B), and the like, alkali metal hydroxides such as sodium hydroxide, potassium hydroxide, and the like, carbonates such as sodium hydrogen carbonate, potassium carbonate, and the like, phosphates such as dipotassium monohydrogen phosphate, trisodium phosphate, and the like, organic acids such as acetic acid, propionic acid, butyric acid, and the like, mineral acids such as hydrochloric acid, phosphoric acid, sulfuric acid, and the like, Lewis acids such as aluminum trichloride, boron trifluoride, boron trichloride, boron tribro-

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mide, tin tetrachloride, titanium tetrachloride, and the like, radical initiators such as an organic peroxide, an azo compound, and the like, fluoride ion-containing compounds such as tetra-n-butyl ammonium fluoride, and the like, and noble metal catalysts such as a palladium catalyst, a ruthenium catalyst, and the like.

These catalysts may be appropriately used in an amount in the range from 0.001-fold molar equivalent to 5-fold molar equivalents with respect to the compound represented by the Formula (8). The reaction temperature may be appropriately selected within the range from -70°C. to 200°C. , and the reaction time may be appropriately selected within the range from several minutes to 96 hours.

The compound represented by the Formula (16) may be appropriately used in an amount selected within the range from 0.2-fold molar equivalent to 10.0-fold molar equivalents with respect to the compound represented by the Formula (8).

Step 3-(ii): Formula (17)+Formula (11) \rightarrow Formula (18)

An aromatic carboxamide or carbamate derivative represented by the Formula (18) can be prepared by reacting the

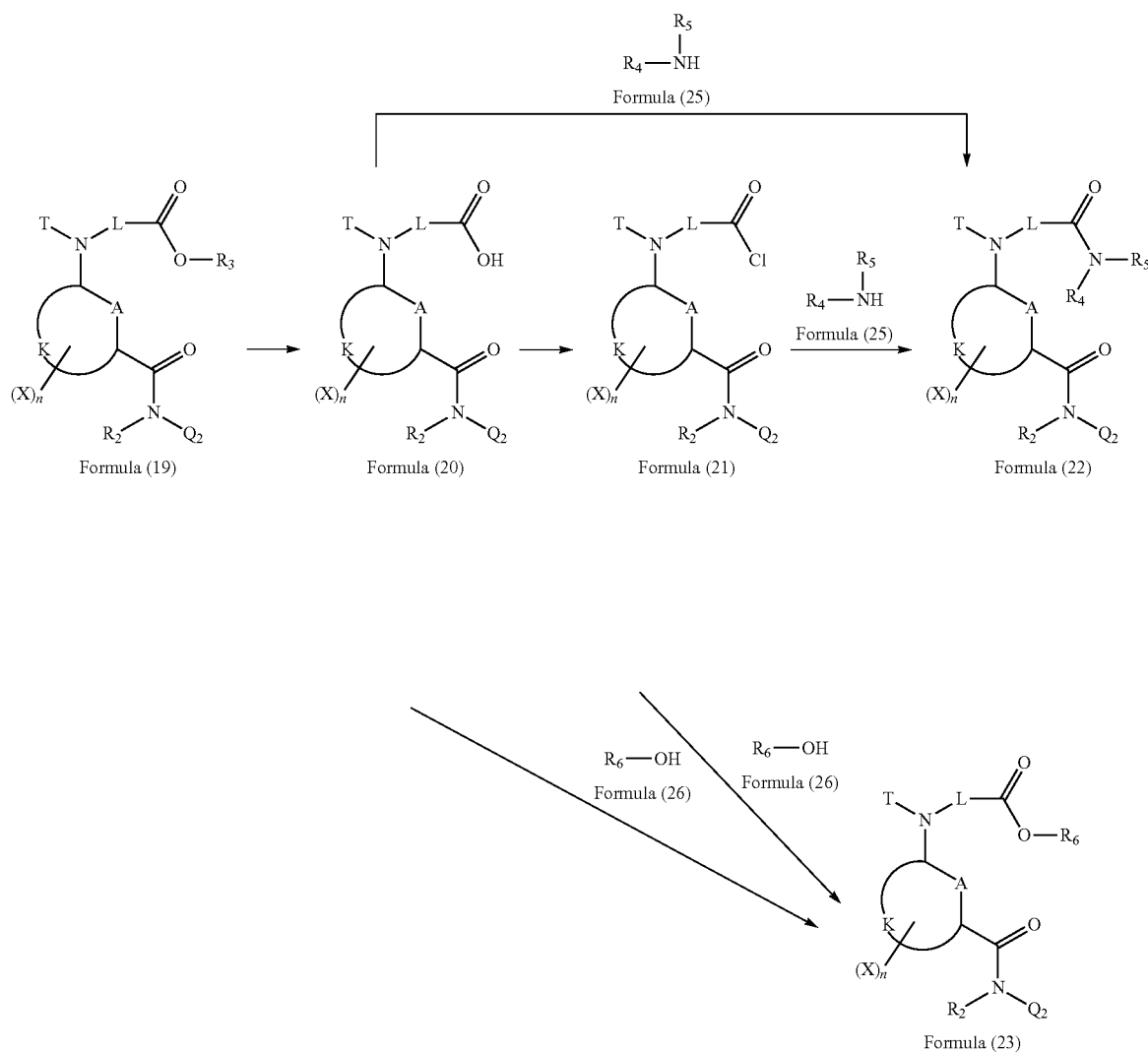
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(11) in a suitable solvent. In the present step, a suitable base or solvent can be used, and as the base or solvent, those exemplified in 1-(i) can be used. Examples of the reaction temperature, the reaction time, and the like may include those exemplified in 1-(i).

In the Formula (11), the carboxylic acid chloride derivative can be prepared easily from a carboxylic acid derivative by a usual method using a halogenating agent. Examples of the halogenating agent may include those exemplified in 1-(i).

Examples of this method include a method for producing a compound represented by the Formula (18) from the carboxylic acid derivative (11) and the compound represented by the Formula (17) without the use of a halogenating agent, and the preparation can be conducted according to the method exemplified in 1-(i).

PREPARATION METHOD 4



aromatic amine derivative represented by the Formula (17) with the carboxylic acid derivative or the carbonate ester derivative having a leaving group represented by the Formula

Step 4-(i): Formula (19) \rightarrow Formula (20)

A carboxylic acid represented by the Formula (20) can be prepared by hydrolyzing an ester derivative represented by

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the Formula (19). Examples of the hydrolysis method include a method using an acid described in "Shin Jikken Kagaku Kooza" (Maruzen), Vol. 14-II, pp. 931-935, a method using an alkali described in pp. 935-938 in the same literature, a method under a neutralized condition described in pp. 938-941 in the same literature, and the like.

Step 4-(ii): Formula (20)→Formula (21)

An acid halogen derivative represented by the Formula (21) can be easily prepared from a carboxylic acid derivative represented by the Formula (20) by a usual method using a halogenating agent. The halogenating agent may include those exemplified in 1-(i).

Step 4-(iii): Formula (21)+Formula (25)→Formula (22)

An amide derivative of the Formula (22) can be prepared by reacting the acid halogen derivative represented by the Formula (21) with an amine derivative represented by the Formula (25). The present preparation step can be conducted according to the method exemplified in 1-i.

Step 4-(iv): Formula (20)+Formula (25)→Formula (22)

The amide derivative of the Formula (22) can be prepared by reacting the carboxylic acid represented by the Formula (20) with an amine represented by the Formula (25). The present preparation step can be conducted according to the method exemplified in 1-i.

Step 4-(v): Formula (21)+Formula (26)→Formula (23)

An ester derivative represented by the Formula (23) can be prepared by reacting the acid halogen derivative represented by the Formula (21) with an alcohol derivative represented by the Formula (26) in a suitable solvent. In the present step, a suitable base can be used. The solvent may be any of those which do not inhibit the reaction significantly, and examples thereof may include aromatic hydrocarbons such as benzene, toluene, xylene, and the like, halogenated hydrocarbons such as dichloromethane, chloroform, carbon tetrachloride, and the like, chained or cyclic ethers such as diethyl ether, dioxane, tetrahydrofuran, 1,2-dimethoxy ethane, and the like, esters such as ethyl acetate, butyl acetate, and the like, ketones such as acetone, methyl isobutyl ketone, cyclohexanone, and the like, amides such as dimethyl formamide, dimethylacetamide, and the like, nitriles such as acetonitrile and the like, and inert solvents such as 1,3-dimethyl-2-imidazolidinone and the like. These solvents may be used alone or as a mixture of two or more kinds thereof.

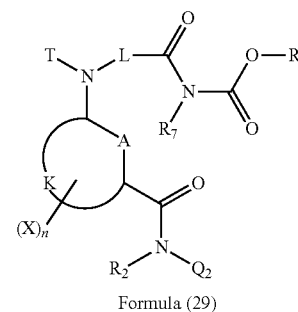
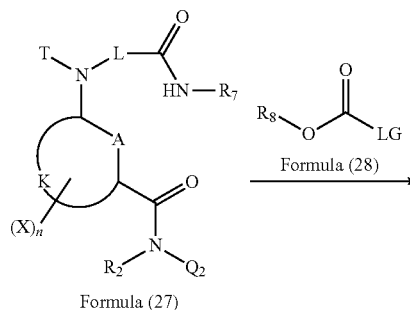
Furthermore, examples of the base may include organic bases such as triethylamine, tri-n-butyl amine, pyridine, 4-dimethylamino pyridine, and the like, alkali metal hydroxides such as sodium hydroxide, potassium hydroxide, and the like, carbonates such as sodium hydrogen carbonate, potassium carbonate, and the like, phosphates such as dipotassium monohydrogen phosphate, trisodium phosphate, and the like, alkali metal hydride salts such as sodium hydride and the like, alkali metal alkoxides such as sodium methoxide, sodium ethoxide, and the like, and lithium amides such as lithium diisopropyl amide, and the like. These bases may be appropriately used in an amount in the range from 0.01-fold molar equivalent to 5-fold molar equivalents with respect to the compound represented by the Formula (26). The reaction temperature may be appropriately selected from -20°C . to the reflux temperature of the solvent used, and the reaction time may be appropriately selected within the range from several minutes to 96 hours.

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Step 4-(vi): Formula (20)+Formula (26)→Formula (23)

The ester derivative represented by the Formula (23) can be prepared by reacting the carboxylic acid derivative represented by the Formula (20) with the alcohol derivative represented by the Formula (26). Examples of the preparation method of the present reaction include a synthesis method using an acid catalyst described in "Shin Jikken Kagaku Kooza" (Maruzen), Vol. 14-II, pp. 1002-1004, and the like.

PREPARATION METHOD 5



Step 5: Formula (27)+Formula (28)→Formula (29)

The compound represented by the Formula (29) according to the present invention can be prepared by reacting the amide compound represented by the Formula (27) with a formate ester derivative represented by the Formula (28) in a solvent or without a solvent. In the present step, a suitable base or solvent can be used, and as the base or solvent, those exemplified in 1-(i) can be used. Examples of the reaction temperature, the reaction time, and the like may include those exemplified in 1-(i).

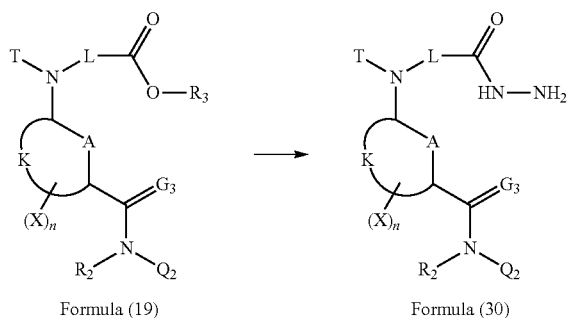
In the Formula (28), the formate chloride derivative can be prepared easily from a formic acid derivative by a usual method using a halogenating agent. The halogenating agent may include those exemplified in 1-(i).

Examples of this method include a method for producing a compound represented by the Formula (29) from the formate ester derivative (28) and the compound represented by the

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Formula (27) without the use of a halogenating agent, and the preparation can be conducted according to the method exemplified in 1-(i).

PREPARATION METHOD 6

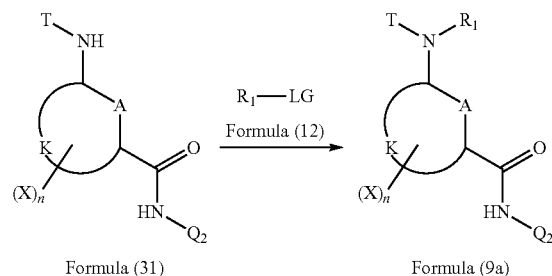
Step 6: Formula (19) \rightarrow Formula (30)

The compound represented by the Formula (30) according to the present invention can be prepared by reacting the ester compound represented by the Formula (19) with a hydrazine in a solvent or without a solvent.

In the present step, a suitable solvent can be used. The solvent may be any of those which do not inhibit the reaction significantly, examples thereof may include aliphatic hydrocarbons such as hexane, cyclohexane, methylcyclohexane, and the like, aromatic hydrocarbons such as benzene, xylene, toluene, and the like, halogenated hydrocarbons such as dichloromethane, chloroform, carbon tetrachloride, 1,2-dichloroethane, and the like, ethers such as diethyl ether, dioxane, tetrahydrofuran, 1,2-dimethoxy ethane, and the like, amides such as dimethyl formamide, dimethylacetamide, and the like, nitriles such as acetonitrile, propionitrile, and the like, alcohols such as methanol, ethanol, and the like, 1,3-dimethyl-2-imidazolidinone, sulfolane, dimethylsulfoxide, water, and the like. These solvents may be used alone or as a mixture of two or more kinds thereof.

The reaction temperature may be appropriately selected within the range from -20°C . to the reflux temperature of the solvent used, and the reaction time may be appropriately selected within the range from several minutes to 96 hours.

PREPARATION METHOD 7

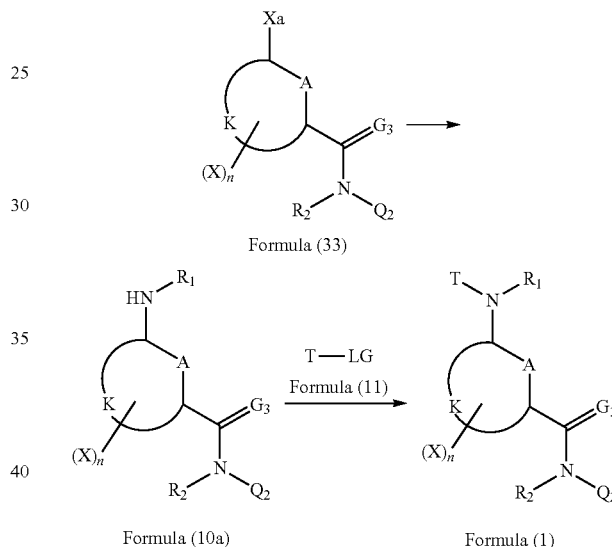
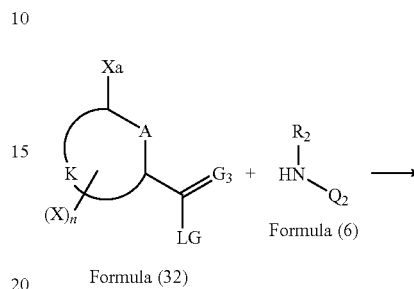
Step 7: Formula (31)+Formula (12) \rightarrow Formula (9a)

The compound represented by the Formula (9a) according to the present invention can be prepared by reacting the amide compound represented by the Formula (31) with the compound having a leaving group such as halogen and the like,

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represented by the Formula (12) in a solvent or without a solvent. In the present step, a suitable base or solvent can be used, and as the base or solvent, those exemplified in 1-(i) can be used. Examples of the reaction temperature, the reaction time, and the like may include those exemplified in 1-(i).

PREPARATION METHOD 8

8-(i): Formula (32)+Formula (6) \rightarrow Formula (33)

A compound represented by the Formula (33) can be prepared by reacting the compound represented by the Formula (32) with a compound represented by the Formula (6) under the condition described in 1-(i).

8-(ii): Formula (33) \rightarrow Formula (10a)

A compound represented by the Formula (10a) can be prepared by carrying out an amination reaction using ammonia according to the conditions described, for example, in J. Org. Chem. p. 280 (1958). However, the conditions such as a reaction solvent and the like are not restricted to those described in the literature, and an inert solvent which does not inhibit the proper progress of the reaction significantly may be used appropriately. The reaction temperature and reaction time may be suitably selected as the reaction proceeds. Further, examples of the amination agent include methylamine, ethylamine or the like, in addition to ammonia.

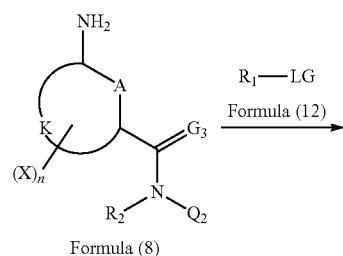
8-(iii): Formula (10a)+Formula (11) \rightarrow Formula (1)

The compound represented by the Formula (1) according to the present invention can be prepared by reacting the com-

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compound represented by the Formula (10a) with a compound represented by the Formula (11) according to the conditions described in 1-(i).

PREPARATION METHOD 9



9-(i): Formula (8)→Formula (10a)

The compound represented by the Formula (10a) can be prepared by reacting the compound represented by the Formula (8) as a starting material according to the conditions of (Method A), (Method B), or (Method C) described in 1-(vi).

9-(i'): Formula (8)+Formula (12)→Formula (10a)

An aromatic carboxamide represented by the Formula (10a) can be prepared by reacting the aromatic amine derivative represented by the Formula (8) with the carboxylic acid derivative or the carbonate ester derivative having a leaving group represented by the Formula (12) in a suitable solvent. In the present step, a suitable base or solvent can be used, and as the base or solvent, those exemplified in 1-(i) can be used. Examples of the reaction temperature, the reaction time, and the like may include those exemplified in 1-(i).

In the Formula (12), the carboxylic acid chloride derivative can be prepared easily from a carboxylic acid derivative by a usual method using a halogenating agent. Examples of the halogenating agent may include those exemplified in 1-(i).

Examples of this method include a method for producing a compound represented by the Formula (10a) from the carboxylic acid derivative (12) and the compound represented by the Formula (8) without the use of a halogenating agent, and the preparation can be conducted according to the method exemplified in 1-(i).

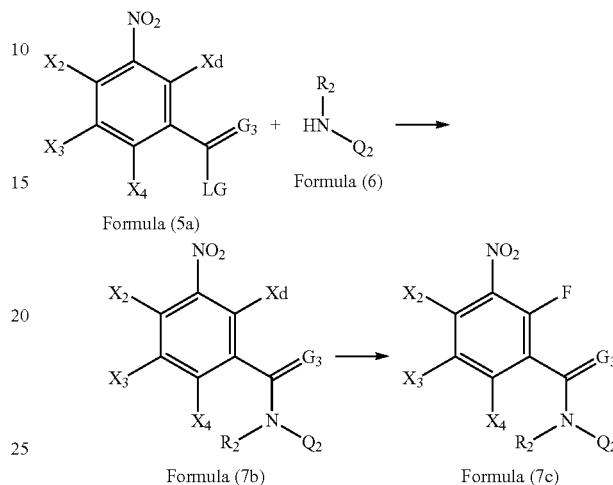
9-(ii): Formula (10a)+Formula (11)→Formula (1)

A compound represented by the Formula (1) can be prepared by reacting the compound represented by the Formula

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(10a) and the compound represented by the Formula (11) as starting materials according to the conditions described in 1-(i).

PREPARATION METHOD 10



10-(i): Formula (5a)+Formula (6)→Formula (7b)

A compound represented by the Formula (7b) can be prepared by reacting the compound represented by the Formula (5a) and the compound represented by the Formula (6) according to the conditions described in 1-(i).

10-(ii): Formula (7b)→Formula (7c)

A compound represented by the Formula (7c) can be prepared by reacting the nitro aromatic carboxamide derivative represented by the Formula (7b) with a suitable fluorinating agent in a suitable solvent or without a solvent.

The solvent may be any of those which do not inhibit the reaction significantly, and examples thereof may include aliphatic hydrocarbons such as hexane, cyclohexane, methylcyclohexane, and the like, aromatic hydrocarbons such as benzene, toluene, xylene, and the like, halogenated hydrocarbons such as dichloromethane, chloroform, carbon tetrachloride, 1,2-dichloroethane, and the like, chained or cyclic ethers such as diethyl ether, dioxane, tetrahydrofuran, 1,2-dimethoxy ethane, and the like, esters such as ethyl acetate, butyl acetate, and the like, ketones such as acetone, methyl isobutyl ketone, cyclohexanone, methyl ethyl ketone, and the like, nitriles such as acetonitrile, propionitrile, and the like, and aprotic polar solvents such as 1,3-dimethyl-2-imidazolidinone, sulfolane, dimethylsulfoxide, N,N-dimethyl formamide, N-methylpyrrolidone, N,N-dimethylacetamide, and the like. These solvents may be used alone or as a mixture of two or more kinds thereof.

Examples of the fluorinating agent may include 1,1,2,2-tetrafluoroethyl diethylamine, 2-chloro-1,1,2-trifluoroethyl diethylamine, trifluorodiphenylphospholane, difluorotriphenylphospholane, fluoroformic acid esters, sulfur tetrafluoride, potassium fluoride, potassium hydrogen fluoride, cesium fluoride, rubidium fluoride, sodium fluoride, lithium fluoride, antimony (III) fluoride, antimony (V) fluoride, zinc fluoride, cobalt fluoride, lead fluoride, copper fluoride, mercury (II) fluoride, silver fluoride, silver fluoroborate, thallium (I) fluoride, molybdenum (VI) fluoride, arsenic (III) fluoride, bromine fluoride, selenium tetrafluoride, tris(dimethylamino)sulfonium difluorotrimethylsilicate, sodium

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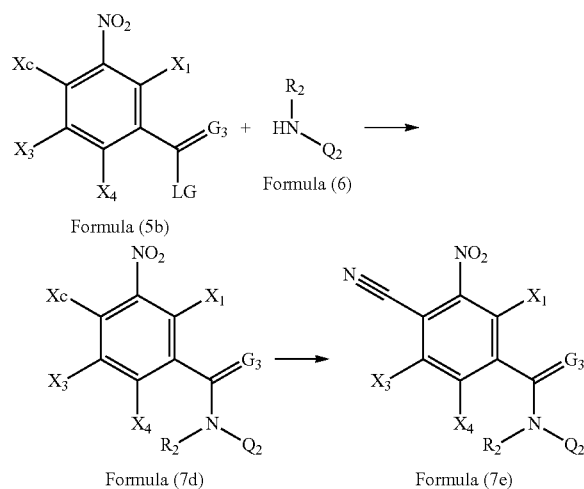
hexafluorosilicate, quaternary ammonium fluorides, (2-chloroethyl) diethylamine, diethylaminosulfur trifluoride, morpholinisulfur trifluoride, silicon tetrafluoride, hydrogen fluoride, hydrofluoric acid, hydrogen fluoride-pyridine complex, hydrogen fluoride-triethylamine complex, hydrogen fluoride salts, bis(2-methoxyethyl)amino sulfurtrifluoride, 2,2-difluoro-1,3-dimethyl-2-imidazolidinone, iodine pentafluoride, tris(diethylamino)phosphonium 2,2,3,3,4,4-hexafluorocyclobutanilide, triethylammonium hexafluorocyclobutanilide, hexafluoropropene, and the like. These fluorinating agents may be used alone or as a mixture of two or more kinds thereof.

The fluorinating agent may be used as a solvent in an amount appropriately selected within the range of 1-fold molar equivalent to 10-fold molar equivalents with respect to the nitro aromatic carboxamide derivative represented by the Formula (7b).

Additives may be used, and examples thereof may include crown ethers such as 18-crown-6 and the like, phase transfer catalysts such as a tetraphenylphosphonium salt and the like, inorganic salts such as calcium fluoride, calcium chloride, and the like, metal oxides such as mercury oxide and the like, ion exchange resins, and the like. These additives may not only be added to the reaction system but also used as a pretreating agent for the fluorinating agent.

The reaction temperature may be appropriately selected within the range from -80°C . to the reflux temperature of the solvent used, and the reaction time may be appropriately selected within the range from several minutes to 96 hours.

PREPARATION METHOD 11



11-(i): Formula (5b)+Formula (6) \rightarrow Formula (7d)

A compound represented by the Formula (7d) can be prepared by reacting the compound represented by the Formula (5b) with a compound represented by the Formula (6) according to the conditions described in 1-(i).

11-(ii): Formula (7d) \rightarrow Formula (7e)

A compound represented by the Formula (7e) can be prepared by reacting the halogen aromatic carboxamide derivative represented by the Formula (7d) with a suitable cyanating agent in a suitable solvent or without a solvent.

The solvent may be any of those which do not inhibit the progress of the present reaction significantly. Examples thereof may include aliphatic hydrocarbons such as hexane,

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cyclohexane, methylcyclohexane, and the like, aromatic hydrocarbons such as benzene, toluene, xylene, and the like, halogenated hydrocarbons such as dichloromethane, chloroform, carbon tetrachloride, 1,2-dichloroethane, and the like, chained or cyclic ethers such as diethyl ether, dioxane, tetrahydrofuran, 1,2-dimethoxy ethane, and the like, esters such as ethyl acetate, butyl acetate, and the like, ketones such as acetone, methyl isobutyl ketone, cyclohexanone, methyl ethyl ketone, and the like, nitriles such as acetonitrile, propionitrile, and the like, and aprotic polar solvents such as 1,3-dimethyl-2-imidazolidinone, sulfolane, dimethylsulfoxide, N,N-dimethyl formamide, N-methylpyrrolidone, N,N-dimethylacetamide, and the like. These solvents may be used alone or as a mixture of two or more kinds thereof.

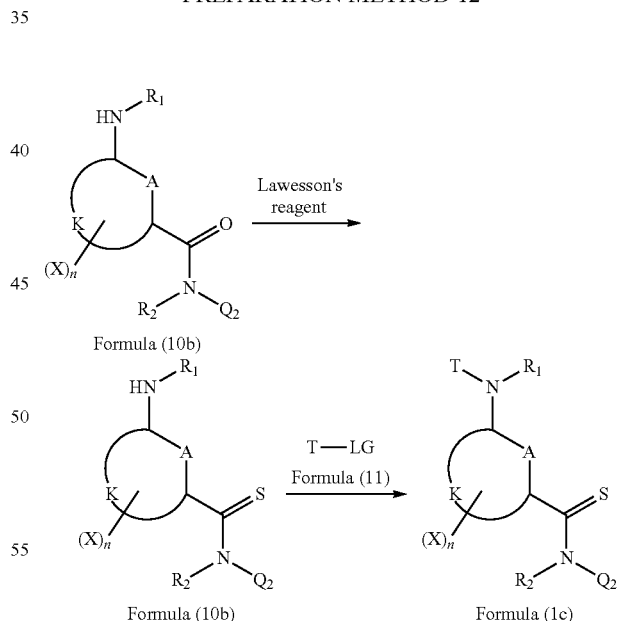
Examples of the cyanating agent include cyanide salts such as sodium cyanide, potassium cyanide, sodium cyanoborohydride, and the like, metal cyanides such as copper cyanide, silver cyanide, lithium cyanide, and the like, hydrogen cyanide, tetraethylammonium cyanide, and the like.

These cyanating agents may be used as a solvent in an amount appropriately selected within the range of 1-fold molar equivalent to 10-fold molar equivalents with respect to the halogen aromatic carboxamide derivative represented by the Formula (7d).

Additives may be used, and examples thereof may include crown ethers such as 18-crown-6 and the like, phase transfer catalysts such as a tetraphenylphosphonium salt and the like, inorganic salts such as sodium iodide and the like.

The reaction temperature may be appropriately selected within the range from -20°C . to the reflux temperature of the solvent used. Further, the reaction time may be appropriately selected within the range from several minutes to 96 hours.

PREPARATION METHOD 12



12-(i): Formula (10b) \rightarrow Formula (10c)

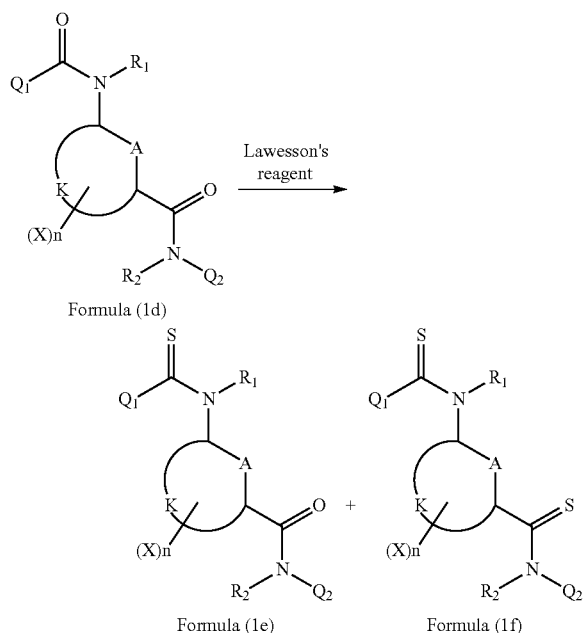
A compound represented by the Formula (10c) can be prepared by reacting the compound represented by the Formula (10b) with a Lawesson's reagent according to the known conditions described in Synthesis p. 463 (1993), Synthesis p. 829 (1984) and the like. The conditions such as a solvent, reaction temperature and the like are not restricted to those described in the literature.

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12-(ii): Formula (10c)+Formula (11)→Formula (1c)

A compound represented by the Formula (1c) can be prepared by reacting the compound represented by the Formula (10c) with a compound represented by the Formula (11) according to the conditions described in 1-(i).

PREPARATION METHOD 13



13: Formula (1d)→Formula (1e)+the Formula (1f)

The compounds represented by the Formula (1e) and the Formula (1f) can be prepared from a compound represented by the Formula (1d) according to the conditions described in 12-(i). The conditions such as a solvent, a reaction temperature, and the like are not restricted to those described in the literature. These two compounds can be easily separated and purified by a known separation and purification technique such as silica gel column chromatography and the like.

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In all of the preparation methods as described above, a desired product may be isolated from the reaction system after the reaction is completed according to a usual method, but optionally, purification can be carried out by operations such as recrystallization, column chromatography, distillation, and the like. In addition, the desired product can be also provided to the subsequent reaction method without being separated from the reaction system.

Hereinbelow, examples of the representative compounds of the compound represented by the Formula (1) as an active ingredient for the pesticide according to the present invention will be given in Table 1 to Table 8 below, but the present invention is not limited thereto.

Furthermore, examples of the representative compounds of the compounds represented by the Formula (6a), the Formula (6b), the Formula (6c), and the Formula (6d), which are intermediates of the compounds according to the present invention will be given in Table 11 to Table 21 below, but the present invention is not limited thereto.

In addition, in the tables, “n-” represents normal, “Me” represents a methyl group, “Et” represents an ethyl group, “nPr” represents a normal propyl group, “iPr” represents a normal propyl group, “iPr” represents an isopropyl group, “nBu” represents a normal butyl group, “iBu” represents an isobutyl group, “sBu” represents a secondary butyl group, “tBu” represents a tertiary butyl group, “Ph” represents a phenyl group, “H” represents a hydrogen atom, “O” represents an oxygen atom, “S” represents a sulfur atom, “C” represents a carbon atom, “N” represents a nitrogen atom, “F” represents a fluorine atom, “Cl” represents a chlorine atom, “Br” represents a bromine atom, “I” represents an iodine atom, “CF3” represents a trifluoromethyl group, “C2F5” represents a pentafluoroethyl group, “OCF3” represents a trifluoromethoxy group, “MeS” represents a methylthio group, “MeSO” represents a methylsulfinyl group, “MeSO2” represents a methylsulfonyl group, “MeO” represents a methoxy group, “NH2” represents an amino group, “MeNH” represents a methylamino group, “Me2N” represents a dimethylamino group, “OH” represents a hydroxy group, “CN” represents a cyano group, “NO2” represents a nitro group, and “Ac” represents an acetyl group.

Further, n in the tables represents the substitution number in the case of X being other than a hydrogen atom. In addition, the expression “2-F” in the X column indicates that a fluorine atom is substituted at the 2-position, which shall apply in other descriptions.

TABLE 1

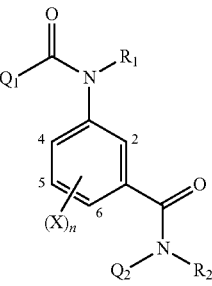
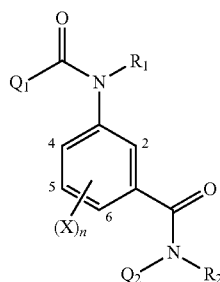
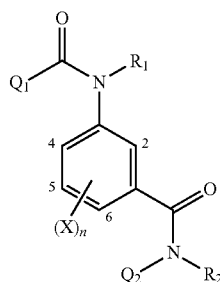
compound number							Q ₁	Q ₂
	R ₁	R ₂	L	D	X	n		
1-1	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-2	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-3	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 1-continued



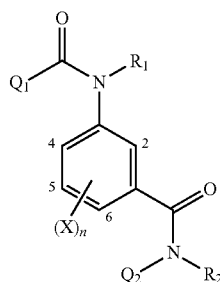
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
1-4	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	3,5-dicyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-5	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-6	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-7	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2,6-difluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-8	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2-fluoro-4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-9	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chlorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-10	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-chlorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-11	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-nitrophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-12	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2-methylphenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-13	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	pyridin-2-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-14	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	pyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-15	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	pyridin-4-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-16	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-17	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	6-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-18	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chloropyridin-4-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-19	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	pyrazin-2-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-20	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	pyrimidin-5-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-21	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-22	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-23	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-24	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3,5-dicyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-25	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-26	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-27	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,6-difluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-28	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-fluoro-4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-29	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chlorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-30	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-chlorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-31	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-nitrophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-32	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-methylphenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-33	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	pyridin-2-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-34	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	pyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 1-continued



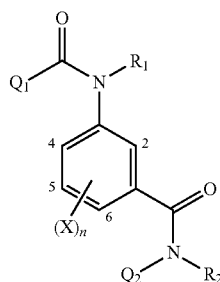
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
1-35	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	pyridin-4-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-36	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-37	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	6-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-38	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-4-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-39	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	pyrazin-2-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-40	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	pyrimidin-5-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-41	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	4-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-42	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	4-F	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-43	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	4-F	1	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-44	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	4-F	1	2-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-45	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	4-F	1	2-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-46	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	4-CN	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-47	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	4-CN	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-48	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	4-CN	1	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-49	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	4-CN	1	2-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-50	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	4-CN	1	2-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-51	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2,6-dibromo-4-pentafluoroethyl-phenyl
1-52	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2,6-diiodo-4-pentafluoroethyl-phenyl
1-53	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
1-54	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
1-55	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-chloro-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-56	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-57	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-iodo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-58	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-59	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-iodo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-60	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-61	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-62	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-63	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2,6-difluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-64	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-65	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-66	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 1-continued



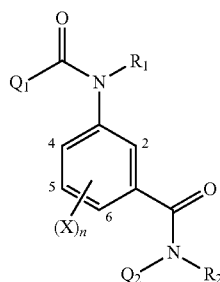
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
1-67	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-68	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-69	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-70	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-71	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-72	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-73	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-chloro-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-74	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-75	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-iodo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-76	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-77	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-iodo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-78	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2,6-dichloro-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-79	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-80	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-81	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2,6-ditrifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-82	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-83	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-84	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-85	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-iodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-86	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-87	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-88	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-89	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-90	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-91	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-92	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-93	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-94	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2-fluorophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-95	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	phenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-96	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	3-cyanophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-97	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chloropyridin-3-yl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 1-continued



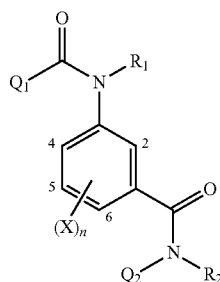
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
1-98	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2-fluorophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-99	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-100	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	3-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-101	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-102	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2-fluorophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-103	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-104	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-105	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chloropyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-106	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-107	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	phenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-108	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	3-cyanophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-109	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-110	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2-fluorophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-111	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	phenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-112	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	3-cyanophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-113	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chloropyridin-3-yl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-114	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2-fluorophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-115	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-116	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	3-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-117	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-118	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2-fluorophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-119	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-120	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-121	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chloropyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-122	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-123	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-dibromo-4-pentafluoroethyl-phenyl
1-124	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-diiodo-4-pentafluoroethyl-phenyl
1-125	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
1-126	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
1-127	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-chloro-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-128	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-129	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-iodo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 1-continued



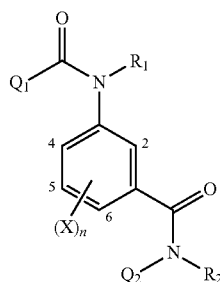
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
1-130	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-131	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-iodo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-132	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-133	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-134	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-135	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-ditrifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-136	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-137	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-138	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-139	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-140	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-141	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-142	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-143	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-144	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-145	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-chloro-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-146	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-147	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-iodo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-148	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-149	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-iodo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-150	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-dichloro-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-151	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-152	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-153	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-ditrifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-154	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-155	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-156	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-157	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-iodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-158	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-159	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-160	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

TABLE 1-continued



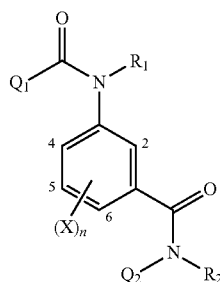
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
1-161	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-162	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-163	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-164	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-165	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-166	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-fluorophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-167	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-168	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3-cyanophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-169	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-170	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-fluorophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-171	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-172	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-173	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-174	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-fluorophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-175	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-176	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-177	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-178	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-179	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-180	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3-cyanophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-181	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-182	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-fluorophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-183	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-184	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3-cyanophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-185	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-186	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-fluorophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-187	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-188	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-189	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-190	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-fluorophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-191	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

TABLE 1-continued



compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
1-192	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-193	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-194	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-195	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	6-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-196	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	6-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-197	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	6-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-198	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3,5-dicyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-199	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3,5-dicyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-200	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	pyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-201	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	pyridin-4-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-202	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-4-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-203	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	pyrazin-2-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-204	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	pyrimidin-5-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-205	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3-cyanophenyl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-206	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-207	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-208	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	6-cyanopyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-209	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-fluorophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-210	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,6-difluorophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-211	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-212	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-213	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	6-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-214	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-215	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-216	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-217	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	phenyl	2,6-difluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-218	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chloropyridin-3-yl	2,6-difluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-219	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	3-cyanophenyl	2,6-difluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-220	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	6-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-221	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	6-chloropyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-222	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	6-chloropyridin-3-yl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

TABLE 1-continued



compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
1-223	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-224	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3,5-dicyanophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-225	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	6-chloropyridin-3-yl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-226	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	3-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-227	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,6-difluorophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-228	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	phenyl	1,4-dimethyl-3-(2-trifluoromethyl)propyl-5-ピラゾール
1-229	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chloropyridin-3-yl	1,4-dimethyl-3-(2-trifluoromethyl)propyl-5-ピラゾール
1-230	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2,6-difluorophenyl	1,4-dimethyl-3-(2-trifluoromethyl)propyl-5-ピラゾール
1-231	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	3-fluorophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-232	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2,6-difluorophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-233	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	6-chloropyridin-3-yl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-234	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	6-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-235	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	pyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-236	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chloro-4-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-237	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	phenyl	2,6-difluoro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-238	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	3-cyanophenyl	2,6-difluoro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-239	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2,6-difluoro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-240	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chloropyridin-3-yl	2,6-difluoro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-241	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	phenyl	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-242	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chloropyridin-3-yl	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-243	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	4-F	1	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-244	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	4-F	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-245	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	4-F	1	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-246	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	4-F	1	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-247	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	4-F	1	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-248	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	4-CN	1	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-249	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	4-CN	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-250	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	4-CN	1	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-251	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	4-CN	1	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-252	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	4-CN	1	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-253	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-NO ₂	1	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 1-continued

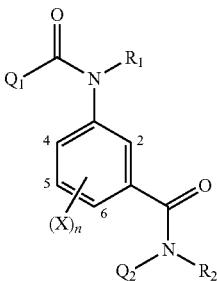
compound number								
	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
1-254	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-NO ₂	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-255	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-NO ₂	1	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
1-256	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-NO ₂	1	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
1-257	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-NO ₂	1	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

TABLE 2

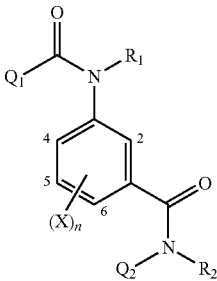
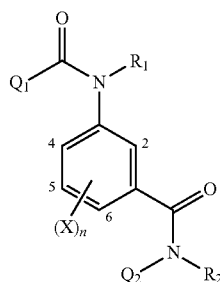
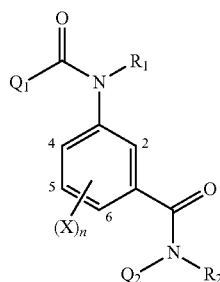
compound number								
	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
2-1	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-2	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-3	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-4	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	3,5-dicyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-5	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	2-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-6	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-7	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	2,6-difluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-8	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	2-fluoro-4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-9	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	2-chlorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-10	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-chlorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-11	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-nitrophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-12	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	2-methylphenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-13	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	pyridin-2-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-14	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	pyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-15	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	pyridin-4-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-16	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	2-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 2-continued



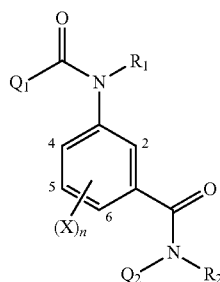
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
2-17	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	6-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-18	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	2-chloropyridin-4-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-19	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	pyrazin-2-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-20	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	pyrimidin-5-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-21	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-22	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-23	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-24	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	3,5-dicyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-25	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	2-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-26	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-27	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	2,6-difluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-28	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	2-fluoro-4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-29	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	2-chlorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-30	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-chlorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-31	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-nitrophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-32	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	2-methylphenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-33	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	pyridin-2-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-34	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	pyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-35	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	pyridin-4-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-36	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	2-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-37	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	6-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-38	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	2-chloropyridin-4-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-39	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	pyrazin-2-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-40	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	pyrimidin-5-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-41	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	4-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-42	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	4-F	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-43	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	4-F	1	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-44	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	4-F	1	2-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-45	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	4-F	1	2-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-46	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	4-CN	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-47	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	4-CN	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 2-continued



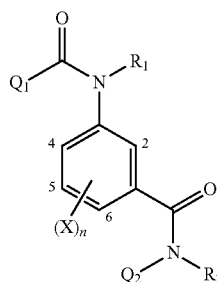
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
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2-49	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	4-CN	1	2-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-50	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	4-CN	1	2-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-51	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2,6-dibromo-4-pentafluoroethyl-phenyl
2-52	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2,6-diiodo-4-pentafluoroethyl-phenyl
2-53	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
2-54	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
2-55	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-chloro-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-56	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-bromo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-57	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-iodo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-58	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-bromo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-59	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-iodo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-60	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-61	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-62	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-63	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2,6-ditrifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-64	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-65	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-66	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-67	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-68	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-69	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-70	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-71	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-72	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-73	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-chloro-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-74	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-bromo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-75	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-iodo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-76	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-bromo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-77	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-iodo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-78	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2,6-dichloro-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-79	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-80	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

TABLE 2-continued



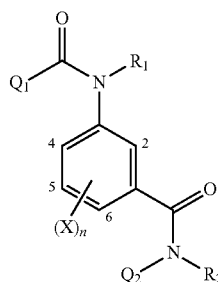
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
2-81	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2,6-ditrifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-82	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-83	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-84	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-85	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-bromo-6-iodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-86	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-87	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-88	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-89	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-90	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	4-cyanophenyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-91	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	phenyl	2,6-bromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-92	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	3-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-93	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	2-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-94	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	2-fluorophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-95	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	phenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-96	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	3-cyanophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-97	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	2-chloropyridin-3-yl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-98	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	2-fluorophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-99	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-100	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	3-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-101	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-102	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	2-fluorophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-103	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-104	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-105	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	2-chloropyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-106	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-107	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	phenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-108	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	3-cyanophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-109	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	2-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-110	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	2-fluorophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-111	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	phenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

TABLE 2-continued



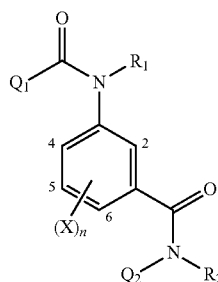
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
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2-113	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	2-chloropyridin-3-yl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-114	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	2-fluorophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-115	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-116	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	3-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-117	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-118	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	2-fluorophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-119	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-120	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-121	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	2-chloropyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-122	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-123	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2,6-dibromo-4-pentafluoroethyl-phenyl
2-124	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2,6-diiodo-4-pentafluoroethyl-phenyl
2-125	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
2-126	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
2-127	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-chloro-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-128	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-bromo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-129	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-iodo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-130	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-bromo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-131	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-iodo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-132	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-133	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-134	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-135	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2,6-ditrifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-136	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-137	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-138	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-139	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-140	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-141	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-142	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-143	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-144	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 2-continued



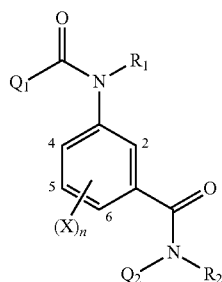
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
2-145	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-chloro-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-146	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-bromo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-147	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-iodo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-148	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-bromo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-149	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-iodo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-150	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2,6-dichloro-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-151	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-152	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-153	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2,6-ditrifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-154	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-155	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-156	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-157	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-bromo-6-iodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-158	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-159	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-160	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-161	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-162	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-163	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-164	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	3-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-165	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	2-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-166	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	2-fluorophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-167	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	phenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-168	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	3-cyanophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-169	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	2-chloropyridin-3-yl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-170	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	2-fluorophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-171	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-172	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	3-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-173	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-174	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	2-fluorophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-175	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 2-continued



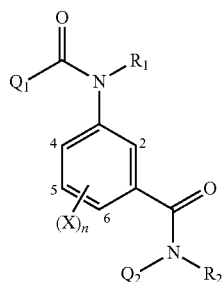
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
2-176	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-177	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	2-chloropyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-178	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-179	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	phenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-180	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	3-cyanophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-181	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	2-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-182	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	2-fluorophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-183	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	phenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-184	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	3-cyanophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-185	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	2-chloropyridin-3-yl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-186	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	2-fluorophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-187	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-188	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	3-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-189	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-190	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	2-fluorophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-191	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-192	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-193	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	2-chloropyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-194	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-195	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	0	6-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-196	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	6-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-197	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	6-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-198	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	3,5-dicyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-199	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	3,5-dicyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-200	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	pyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-201	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	pyridin-4-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-202	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	2-chloropyridin-4-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-203	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	pyrazin-2-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-204	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	pyrimidin-5-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-205	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	3-cyanophenyl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-206	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	phenyl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-207	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	2-chloropyridin-3-yl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 2-continued



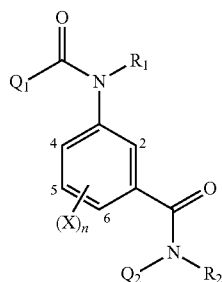
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
2-208	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	6-cyanopyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-209	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-fluorophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-210	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	2,6-difluorophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-211	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	2-chloropyridin-3-yl	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-212	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	phenyl	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-213	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	6-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-214	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-215	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-216	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-F	1	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-217	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	4-F	1	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-218	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	4-F	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-219	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	4-F	1	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-220	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	4-F	1	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-221	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	4-F	1	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-222	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	4-CN	1	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-223	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	4-CN	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-224	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	4-CN	1	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-225	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	4-CN	1	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-226	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	4-CN	1	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-227	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-NO ₂	1	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-228	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-NO ₂	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-229	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-NO ₂	1	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
2-230	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-NO ₂	1	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
2-231	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	2-NO ₂	1	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

TABLE 3



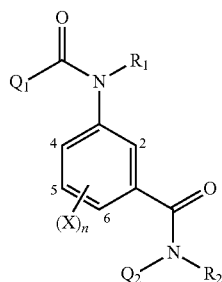
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
3-1	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-2	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-3	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-4	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	3,5-dicyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-5	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	2-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-6	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-7	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	2,6-difluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-8	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	2-fluoro-4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-9	-L-0	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	2-chlorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-10	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-chlorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-11	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-nitrophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-12	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	2-methylphenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-13	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	pyridin-2-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-14	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	pyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-15	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	pyridin-4-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-16	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	2-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-17	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	6-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-18	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	2-chloropyridin-4-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-19	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	pyrazin-2-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-20	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	pyrimidin-5-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-21	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-22	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-23	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-24	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	3,5-dicyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-25	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	2-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-26	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-27	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	2,6-difluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-28	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	2-fluoro-4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-29	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	2-chlorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-30	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-chlorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-31	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-nitrophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 3-continued



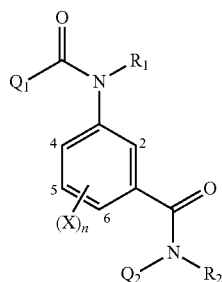
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
3-32	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	2-methylphenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-33	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	pyridin-2-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-34	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	pyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-35	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	pyridin-4-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-36	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	2-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-37	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	6-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-38	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	2-chloropyridin-4-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-39	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	pyrazin-2-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-40	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	pyrimidin-5-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-41	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	4-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-42	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	4-F	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-43	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	4-F	1	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-44	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	4-F	1	2-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-45	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	4-F	1	2-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-46	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	4-CN	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-47	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	4-CN	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-48	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	4-CN	1	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-49	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	4-CN	1	2-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-50	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	4-CN	1	2-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-51	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2,6-dibromo-4-pentafluoroethyl-phenyl
3-52	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2,6-diiodo-4-pentafluoroethyl-phenyl
3-53	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
3-54	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
3-55	-L-D	1-1	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-chloro-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-56	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-bromo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-57	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-iodo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-58	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-bromo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-59	-L-0	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-iodo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-60	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-61	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-62	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-63	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2,6-ditrifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 3-continued



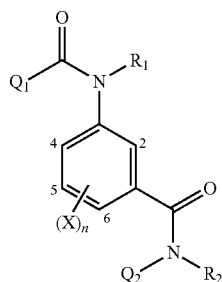
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
3-64	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-65	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-66	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-67	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-68	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-69	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-70	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-71	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-72	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-73	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-chloro-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-74	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-bromo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-75	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-iodo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-76	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-bromo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-77	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-iodo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-78	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2,6-dichloro-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-79	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-80	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-81	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2,6-ditrifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-82	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-83	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-84	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-85	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-bromo-6-iodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-86	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-87	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-88	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-89	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-90	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	4-cyanophenyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-91	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-92	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	3-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-93	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	2-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-94	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	2-fluorophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 3-continued



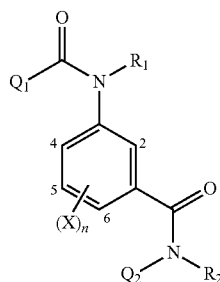
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
3-95	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	phenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-96	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	3-cyanophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-97	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	2-chloropyridin-3-yl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-98	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	2-fluorophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-99	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-100	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	3-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-101	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-102	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	2-fluorophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-103	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-104	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-105	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	2-chloropyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-106	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-107	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	phenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-108	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	3-cyanophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-109	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	2-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-110	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	2-fluorophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-111	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	phenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-112	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	3-cyanophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-113	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	2-chloropyridin-3-yl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-114	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	2-fluorophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-115	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-116	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	3-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-117	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-118	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	2-fluorophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-119	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-120	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-121	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	2-chloropyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-122	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-123	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2,6-dibromo-4-pentafluoroethyl-phenyl
3-124	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2,6-diiodo-4-pentafluoroethyl-phenyl
3-125	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
3-126	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-pentafluoroethyl-phenyl

TABLE 3-continued



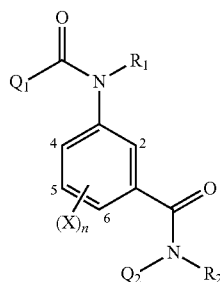
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3-127	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-chloro-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-128	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-bromo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-129	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-iodo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-130	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-bromo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-131	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-iodo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-132	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-133	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-134	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-135	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2,6-ditrifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-136	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-137	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-138	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-139	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-140	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-141	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-142	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-143	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-144	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-145	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-chloro-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-146	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-bromo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-147	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-iodo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-148	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-bromo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-149	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-iodo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-150	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2,6-dichloro-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-151	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-152	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-153	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2,6-ditrifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-154	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-155	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-156	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-157	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-bromo-6-iodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

TABLE 3-continued



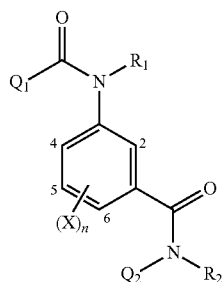
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3-158	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-159	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-160	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-161	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-162	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-163	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-164	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	3-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-165	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	2-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-166	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	2-fluorophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-167	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	phenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-168	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	3-cyanophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-169	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	2-chloropyridin-3-yl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-170	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	2-fluorophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-171	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-172	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	3-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-173	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-174	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	2-fluorophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-175	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-176	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-177	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	2-chloropyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-178	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-179	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	phenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-180	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	3-cyanophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-181	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	2-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-182	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	2-fluorophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-183	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	phenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-164	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	3-cyanophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-185	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	2-chloropyridin-3-yl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-186	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	2-fluorophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-187	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-188	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	3-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

TABLE 3-continued



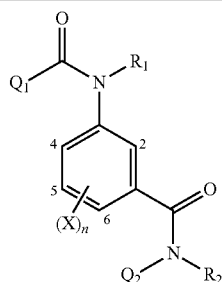
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3-190	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	2-fluorophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-191	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-192	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-193	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	2-chloropyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-194	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-195	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	6-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-196	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	6-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-197	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	6-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-198	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	3,5-dicyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-199	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	3,5-dicyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-200	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	pyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-201	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	pyridin-4-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-202	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	2-chloropyridin-4-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-203	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	pyrazin-2-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-204	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	pyrimidin-5-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-205	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	3-cyanophenyl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-206	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	phenyl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-207	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	2-chloropyridin-3-yl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-208	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	6-cyanopyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-209	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-fluorophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-210	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	2,6-difluorophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-211	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	2-chloropyridin-3-yl	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-212	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	phenyl	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-213	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	6-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-214	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-215	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-216	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-217	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	4-F	1	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl) phenyl
3-218	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	4-F	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-219	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	4-F	1	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 3-continued



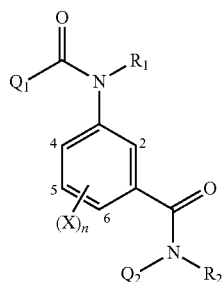
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
3-220	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	4-F	1	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-221	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	4-F	1	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-222	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	4-CN	1	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-223	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	4-CN	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-224	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	4-CN	1	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-225	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	4-CN	1	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-226	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	4-CN	1	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-227	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-NO ₂	1	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-228	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-NO ₂	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-229	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-NO ₂	1	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
3-230	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-NO ₂	1	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
3-231	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	2-NO ₂	1	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

TABLE 4



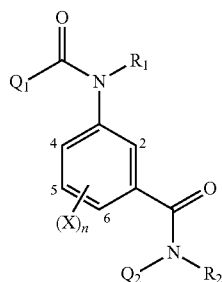
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4-1	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-2	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-3	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-4	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	3,5-dicyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-5	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	2-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-6	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-7	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	2,6-difluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-8	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	2-fluoro-4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 4-continued



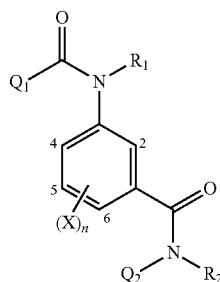
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
4-9	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	2-chlorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-10	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-chlorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-11	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-nitrophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-12	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	2-methylphenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-13	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	pyridin-2-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-14	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	pyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-15	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	pyridin-4-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-16	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	2-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-17	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	6-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-18	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	2-chloropyridin-4-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-19	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	pyrazin-2-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-20	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	pyrimidin-5-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-21	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-22	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-23	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-24	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	3,5-dicyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-25	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	2-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-26	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-27	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	2,6-difluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-28	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	2-fluoro-4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-29	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	2-chlorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-30	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-chlorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-31	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-nitrophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-32	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	2-methylphenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-33	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	pyridin-2-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-34	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	pyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-35	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	pyridin-4-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-36	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	2-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-37	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	6-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-38	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	2-chloropyridin-4-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-39	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	pyrazin-2-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 4-continued



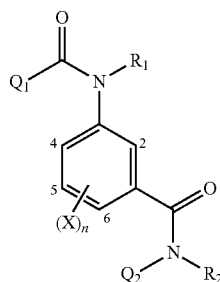
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
4-40	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	pyrimidin-5-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-41	-L-D	H	—CH ₂ CH ₂ —	SOMe	4-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-42	-L-D	H	—CH ₂ CH ₂ —	SOMe	4-F	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-43	-L-D	H	—CH ₂ CH ₂ —	SOMe	4-F	1	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-44	-L-D	H	—CH ₂ CH ₂ —	SOMe	4-F	1	2-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-45	-L-D	H	—CH ₂ CH ₂ —	SOMe	4-F	1	2-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-46	-L-D	H	—CH ₂ CH ₂ —	SOMe	4-CN	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-47	-L-D	H	—CH ₂ CH ₂ —	SOMe	4-CN	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-48	-L-D	H	—CH ₂ CH ₂ —	SOMe	4-CN	1	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-49	-L-D	H	—CH ₂ CH ₂ —	SOMe	4-CN	1	2-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-50	-L-D	H	—CH ₂ CH ₂ —	SOMe	4-CN	1	2-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-51	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2,6-dibromo-4-pentafluoroethyl-phenyl
4-52	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2,6-diiodo-4-pentafluoroethyl-phenyl
4-53	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
4-54	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
4-55	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-chloro-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-56	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-bromo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-57	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-iodo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-58	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-bromo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-59	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-iodo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-60	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-61	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-62	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-63	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2,6-difluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-64	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-65	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-66	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-67	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-68	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-69	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-70	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-71	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 4-continued



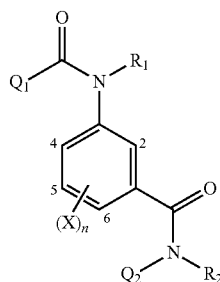
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
4-72	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-73	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-chloro-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-74	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-bromo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-75	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-iodo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-76	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-bromo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-77	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-iodo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-78	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2,6-dichloro-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-79	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-80	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-81	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2,6-ditrifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-82	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-83	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-84	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-85	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-bromo-6-iodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-86	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-87	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-88	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-89	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-90	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	4-cyanophenyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-91	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-92	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	3-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-93	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	2-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-94	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	2-fluorophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-95	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	phenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-96	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	3-cyanophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-97	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	2-chloropyridin-3-yl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-98	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	2-fluorophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-99	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-100	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	3-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-101	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-102	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	2-fluorophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 4-continued



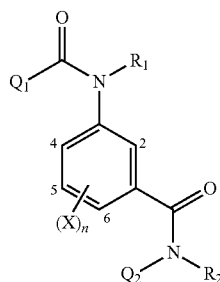
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
4-103	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-104	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-105	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	2-chloropyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-106	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-107	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	phenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-108	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	3-cyanophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-109	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	2-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-110	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	2-fluorophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-111	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	phenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-112	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	3-cyanophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-113	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	2-chloropyridin-3-yl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-114	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	2-fluorophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-115	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-116	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	3-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-117	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-118	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	2-fluorophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-119	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-120	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-121	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	2-chloropyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-122	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-123	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2,6-dibromo-4-pentafluoroethyl-phenyl
4-124	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2,6-diiodo-4-pentafluoroethyl-phenyl
4-125	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
4-126	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
4-127	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-chloro-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-128	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-bromo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-129	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-iodo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-130	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-bromo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-131	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-iodo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-132	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-133	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-134	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 4-continued



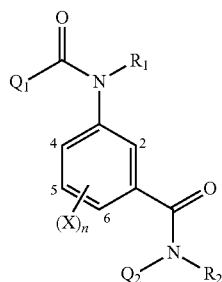
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
4-135	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2,6-difluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-136	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-137	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-138	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-139	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-140	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-141	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-142	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-143	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-144	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-145	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-chloro-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-146	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-bromo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-147	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-iodo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-148	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-bromo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-149	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-iodo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-150	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2,6-dichloro-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-151	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-152	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-153	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2,6-difluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-154	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-bromo-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-155	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-iodo-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-156	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-bromo-trifluoromethoxy-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-157	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-bromo-6-iodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-158	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-bromo-trifluoromethylthio-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-159	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-160	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-161	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-162	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-163	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-164	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	3-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-165	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	2-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 4-continued



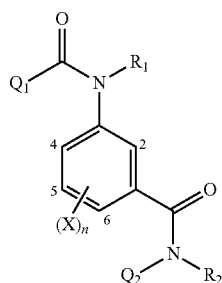
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
4-166	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	2-fluorophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-167	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	phenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-168	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	3-cyanophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-169	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	2-chloropyridin-3-yl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-170	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	2-fluorophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-171	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-172	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	3-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-173	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-174	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	2-fluorophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-175	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-176	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-177	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	2-chloropyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-178	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-179	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	phenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-180	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	3-cyanophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-181	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	2-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-182	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	2-fluorophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-183	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	phenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-184	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	3-cyanophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-185	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	2-chloropyridin-3-yl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-186	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	2-fluorophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-187	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-188	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	3-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-189	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-190	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	2-fluorophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-191	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-192	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-193	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	2-chloropyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-194	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-195	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	6-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-196	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	6-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 4-continued



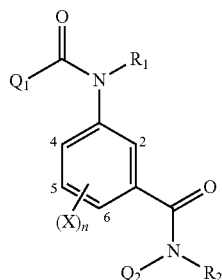
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
4-197	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	6-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-198	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	3,5-dicyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-199	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	3,5-dicyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-200	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	pyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-201	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	pyridin-4-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-202	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	2-chloropyridin-4-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-203	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	pyrazin-2-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-204	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	pyrimidin-5-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-205	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	3-cyanophenyl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-206	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	phenyl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-207	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	2-chloropyridin-3-yl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-208	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	6-cyanopyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-209	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-fluorophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-210	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	2,6-difluorophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-211	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	2-chloropyridin-3-yl	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-212	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	phenyl	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-213	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	6-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-214	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-215	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-216	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-F	1	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-217	-L-D	H	—CH ₂ CH ₂ —	SOMe	4-F	1	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-218	-L-D	H	—CH ₂ CH ₂ —	SOMe	4-F	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-219	-L-D	H	—CH ₂ CH ₂ —	SOMe	4-F	i	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-220	-L-D	H	—CH ₂ CH ₂ —	SOMe	4-F	1	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-221	-L-D	H	—CH ₂ CH ₂ —	SOMe	4-F	1	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-222	-L-D	H	—CH ₂ CH ₂ —	SOMe	4-CN	1	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-223	-L-D	H	—CH ₂ CH ₂ —	SOMe	4-CN	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-224	-L-D	H	—CH ₂ CH ₂ —	SOMe	4-CN	1	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-225	-L-D	H	—CH ₂ CH ₂ —	SOMe	4-CN	1	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-226	-L-D	H	—CH ₂ CH ₂ —	SOMe	4-CN	1	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-227	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-NO ₂	1	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 4-continued



compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
4-228	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-NO ₂	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-229	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-NO ₂	1	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
4-230	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-NO ₂	1	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
4-231	-L-D	H	—CH ₂ CH ₂ —	SOMe	2-NO ₂	1	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

TABLE 5



compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
5-1	-L-D	H	—CH ₂ CH ₂ —	CO ₂ Me	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-2	-L-D	H	—CH ₂ CH ₂ —	CO ₂ Et	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-3	-L-D	H	—CH ₂ CH ₂ —	CO ₂ iPr	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-4	-L-D	H	—CH ₂ CH ₂ —	CO ₂ H	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-5	-L-D	H	—CH ₂ CH ₂ —	OH	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-6	-L-D	H	—CH ₂ CH ₂ —	NH ₂	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-7	-L-D	H	—CH ₂ CH ₂ —	NHAc	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-8	-L-D	H	—CH ₂ CH ₂ —	CN	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-9	-L-D	H	—CH ₂ CH ₂ —	CONHMe	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-10	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 5-continued

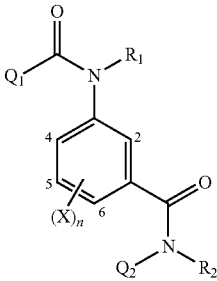
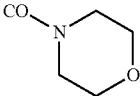
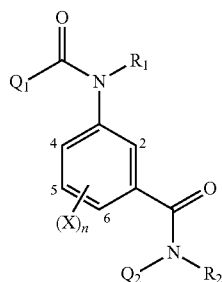
								
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
5-11	-L-D	H	—CH ₂ CH ₂ —	CONHiPr	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-12	-L-D	H	—CH ₂ CH ₂ —	CONHiPr	H	0	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-13	-L-D	H	—CH ₂ CH ₂ —	CONHEt	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-14	-L-D	H	—CH ₂ CH ₂ —		H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-15	-L-D	H	—CH ₂ CH ₂ —	CONH(CH ₂) ₃ CH(CO ₂ tBu)NHCO ₂ tBu	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-16	-L-D	H	—CH ₂ CH ₂ —	CONHCH(CO ₂ tBu)CH ₂ CH ₂ CO ₂ tBu	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-17	-L-D	H	—CH ₂ CH ₂ —	CONHCH(CO ₂ tBu)(CH ₂) ₃ CH ₂ NHCO ₂ tBu	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-18	-L-D	H	—CH ₂ CH ₂ —	CONHCH(CO ₂ tBu)CH ₂ OtBu	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-19	-L-D	H	—CH ₂ CH ₂ —	CONHCH(CO ₂ tBu)CH ₂ CH ₂ CONH ₂	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-20	-L-D	H	—CH ₂ CH ₂ —	CONHCH ₂ CO ₂ CH ₂ Ph	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-21	-L-D	H	—CH ₂ CH ₂ —	CONHCH ₂ CONH ₂	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-22	-L-D	H	—CH ₂ CH ₂ —	CO ₂ CH ₂ CH(CO ₂ tBu)NHCO ₂ tBu	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-23	-L-D	H	—CH ₂ CH ₂ —	CONHCH ₂ CO ₂ H	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-24	-L-D	H	—CH ₂ CH ₂ —	CONH(CH ₂) ₃ CH(NH ₂)CO ₂ H	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-25	-L-D	H	—CH ₂ CH ₂ —	CO ₂ CH ₂ CH(NH ₂)CO ₂ H	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-26	-L-D	H	—CH ₂ CH ₂ —	CONHCH(CO ₂ H)(CH ₂) ₄ NH ₂	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-27	-L-D	H	—CH ₂ CH ₂ —	CONHCH(CO ₂ H)CH ₂ OH	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-28	-L-D	H	—CH ₂ CH ₂ —	CONHCH(CO ₂ H)CH ₂ CH ₂ CO ₂ H	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-29	-L-D	H	—CH ₂ CH ₂ —	CONHCH(CO ₂ H)CH ₂ CH ₂ CONH ₂	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 5-continued



compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
5-30	-L-D	H	—CH ₂ CH ₂ —	CONHCH(CONH ₂)CH ₂ CONH ₂	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-31	-L-D	H	—CH ₂ CH ₂ —	CONHCH ₂ CONH ₂	2-F	1	4-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-32	-L-D	H	—CH ₂ CH ₂ —	CONHCH(CONH ₂)CH ₂ CH ₂ CONH ₂	2-F	1	4-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-33	-L-D	H	—CH ₂ CH ₂ —	CONHOH	2-F	1	3-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-34	-L-D	H	—CH ₂ CH ₂ —	CONHOH	2-F	1	4-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-35	-L-D	Me	—CH ₂ CH ₂ —	OH	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-36	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	H	0	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-37	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	H	0	2-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-38	-L-D	H	—CH ₂ CH ₂ —	CO ₂ Me	2-F	1	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-39	-L-D	H	—CH ₂ CH ₂ —	CO ₂ Et	2-F	1	phenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-40	-L-D	H	—CH ₂ CH ₂ —	CO ₂ iPr	2-F	1	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-41	-L-D	H	—CH ₂ CH ₂ —	CO ₂ H	2-F	1	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-42	-L-D	H	—CH ₂ CH ₂ —	OH	2-F	1	phenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
5-43	-L-D	H	—CH ₂ CH ₂ —	NH ₂	2-F	1	phenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
5-44	-L-D	H	—CH ₂ CH ₂ —	NHAc	2-F	1	4-nitrophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
5-45	-L-D	H	—CH ₂ CH ₂ —	CN	2-F	1	pyrazin-2-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-46	-L-D	H	—CH ₂ CH ₂ —	CONHMe	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-47	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-48	-L-D	H	—CH ₂ CH ₂ —	CONHiPr	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-49	-L-D	H	—CH ₂ CH ₂ —	CONHiPr	2-F	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-50	-L-D	H	—CH ₂ CH ₂ —	CONHEt	2-F	1	2-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 5-continued

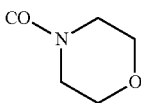
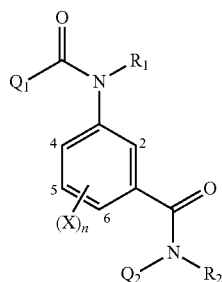
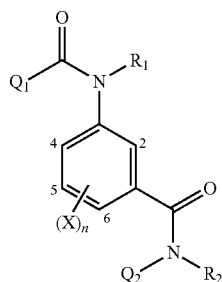
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
5-51	-L-D	H	—CH ₂ CH ₂ —		2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-52	-L-D	H	—CH ₂ CH ₂ —	CONH(CH ₂) ₃ CH(CO ₂ tBu)NHCO ₂ tBu	2-F	1	3-pyrimidyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-53	-L-D	H	—CH ₂ CH ₂ —	CONHCH(CO ₂ tBu)CH ₂ CH ₂ CO ₂ tBu	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-54	-L-D	H	—CH ₂ CH ₂ —	CONH ₂ CH(CO ₂ tBu)CH ₂ (CH ₂) ₃ NHCO ₂ tBu	2-F	1	2-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-55	-L-D	H	—CH ₂ CH ₂ —	CONHCH(CO ₂ tBu)CH ₂ OtBu	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-56	-L-D	H	—CH ₂ CH ₂ —	CONH ₂ CH(CO ₂ tBu)CH ₂ CH ₂ CONH ₂	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-57	-L-D	H	—CH ₂ CH ₂ —	CONH ₂ CH ₂ CO ₂ CH ₂ Ph	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-58	-L-D	H	—CH ₂ CH ₂ —	CONH ₂ CH ₂ CONH ₂	2-F	1	6-cyanopyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-59	-L-D	H	—CH ₂ CH ₂ —	CO ₂ CH ₂ CH(CO ₂ tBu)NHCO ₂ tBu	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-60	-L-D	H	—CH ₂ CH ₂ —	CONHCH ₂ CO ₂ H	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-61	-L-D	H	—CH ₂ CH ₂ —	CONH(CH ₂) ₃ CH(NH ₂)CO ₂ H	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-62	-L-D	H	—CH ₂ CH ₂ —	CO ₂ CH ₂ CH(NH ₂)CO ₂ H	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-63	-L-D	H	—CH ₂ CH ₂ —	CO ₂ CH ₂ CH(CO ₂ H)(CH ₂) ₄ NH ₂	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-64	-L-D	H	—CH ₂ CH ₂ —	CONHCH(CO ₂ H)CH ₂ OH	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-65	-L-D	H	—CH ₂ CH ₂ —	CONHCH(CO ₂ H)CH ₂ CH ₂ CO ₂ H	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-66	-L-D	H	—CH ₂ CH ₂ —	CONHCH(CO ₂ H)CH ₂ CH ₂ CONH ₂	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-67	-L-D	H	—CH ₂ CH ₂ —	CONHCH(CONH ₂)CH ₂ CONH ₂	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-68	-L-D	H	—CH ₂ CH ₂ —	OH	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-69	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	2-F	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-70	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	2-F	1	2-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 5-continued



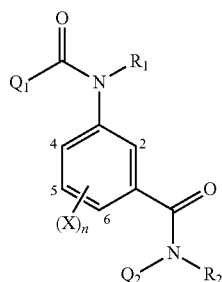
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
5-71	-L-D	H	—CH ₂ CH ₂ —	SMe	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-72	-L-D	H	—CH ₂ CH ₂ —	SOMe	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-73	-L-D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-74	-L-D	H	—CH ₂ CH ₂ —	OCH ₂ Ph	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-75	-L-D	H	—CH ₂ CH ₂ —	OCH ₂ CH ₂ OMe	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-76	-L-D	H	—CH ₂ CH ₂ —	CONHCO ₂ Et	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-77	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	H	0	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-78	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	H	0	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-79	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	H	0	2-chloro-4-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-80	-L-D	H	—CH ₂ CH ₂ —	CO ₂ Me	H	0	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-81	-L-D	H	—CH ₂ CH ₂ —	CONHNH ₂	H	0	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-82	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	H	0	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-83	-L-D	H	—CH ₂ CH ₂ —	CONHNH ₂	2-F	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-84	-L-D	H	—CH ₂ CH ₂ —	OCH ₂ CH ₂ OH	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-85	-L-D	H	—CH ₂ CH ₂ —	OCH ₂ CH ₂ OH	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-86	-L-D	H	—CH ₂ CH ₂ —	CONHMe	H	0	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-87	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	2-F	1	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-88	-L-D	H	—CH ₂ CH ₂ —	CO ₂ H	H	0	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-89	-L-D	H	—CH ₂ CH ₂ —	OCH ₂ CH ₂ OCH ₂ Ph	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-90	-L-D	H	—CH ₂ CH ₂ —	OCH ₂ CH ₂ OCH ₂ Ph	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 5-continued



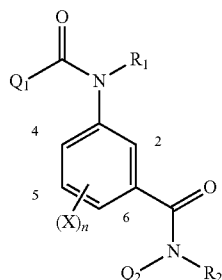
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
5-91	-L-D	H	—CH ₂ CH ₂ —	C(=NOH)NH ₂	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-92	-L-D	H	—CH ₂ CH ₂ —	CONHCH ₂ CN	2-F	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-93	-L-D	H	—CH ₂ CH ₂ —	CO ₂ CH ₂ CH ₂ NMe ₂	H	0	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-94	-L-D	H	—CH ₂ CH ₂ —	CO ₂ CH ₂ CH ₂ NMe ₂	H	0	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-95	-L-D	H	—CH ₂ CH ₂ —	CO ₂ CH ₂ CH ₂ NMe ₂	H	0	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-96	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	H	0	pyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-97	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	H	0	pyridin-3-yl N-oxide	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-98	-L-D	H	—CH ₂ CH ₂ —	CHO	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-99	-L-D	H	—CH ₂ CH ₂ —	C(=NOH)NH ₂	H	0	phenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-100	-L-D	H	—CH ₂ CH ₂ —	Ac	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-101	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	2-F	1	pyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-102	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	2-F	1	pyridin-3-yl N-oxide	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-103	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	H	0	phenyl	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-104	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	H	0	2-chloropyridin-3-yl	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-105	-L-D	H	—CH ₂ CH ₂ —	C(=NOH)Me	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-106	-L-D	H	—CH ₂ CH ₂ —	CONHC(CH ₂ OH) ₃	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-107	-L-D	H	—CH ₂ CH ₂ —	CONHCH ₂ OCH ₂ OMe	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-108	-L-D	H	—CH ₂ CH ₂ —	CN	2-F	1	pyrazin-5-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-109	-L-D	H	—CH ₂ CH ₂ —	NMe ₂	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-110	-L-D	H	—CH ₂ CH ₂ —	NMe ₃ ⁺ I ⁻	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 5-continued



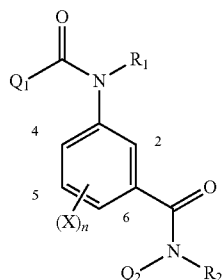
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
5-111	-L-D	H	—CH ₂ CH ₂ —	CN	H	0	3-fluorophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-112	-L-D	H	—CH ₂ CH ₂ —	CN	H	0	phenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-113	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	4-F	1	phenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-114	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	4-F	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-115	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	4-F	1	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-116	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	4-F	1	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
5-117	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	4-F	1	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
5-118	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	4-CN	1	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-119	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	4-CN	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-120	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	4-CN	1	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-121	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	4-CN	1	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
5-122	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	4-CN	1	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
5-123	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	2-NO ₂	1	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-124	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	2-NO ₂	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-125	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	2-NO ₂	1	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
5-126	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	2-NO ₂	1	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
5-127	-L-D	H	—CH ₂ CH ₂ —	CONMe ₂	2-NO ₂	1	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
5-128	-L-D	H	—CH ₂ CH ₂ —	CO ₂ CH ₂ CH ₂ NMe ₂	H	0	2-chloropyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 6



compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
6-1	—L—D	Me	—CH ₂ —	CO ₂ Me	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-2	—L—D	H	—CH ₂ —	CO ₂ Me	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-3	—L—D	Me	—CH ₂ —	CO ₂ H	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-4	—L—D	H	—CH ₂ —	CO ₂ H	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-5	—L—D	Me	—CH ₂ —	CO ₂ Et	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-6	—L—D	Me	—CH ₂ —	SMe	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-7	—L—D	Me	—CH ₂ —	SOMe	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-8	—L—D	Me	—CH ₂ —	SO ₂ Me	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-9	—L—D	H	—CH(CH ₃)CH ₂ —	CONH ₂	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-10	—L—D	H	—CH ₂ CH(CH ₃)—	CONH ₂	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-11	—L—D	Me	—CH ₂ CH ₂ CH ₂ —	NH ₂	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-12	—L—D	Me	—CH ₂ —	CONH ₂	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-13	—L—D	Me	—CH ₂ CH ₂ CH ₂ —	CO ₂ Me	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-14	—L—D	Me	—CH ₂ CH ₂ CH ₂ —	CO ₂ H	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-15	—L—D	Me	—CH ₂ CH ₂ CH ₂ —	CONH ₂	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-16	—L—D	H	—CH ₂ CH ₂ CH ₂ —	CONH ₂	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-17	—L—D	H	—CH ₂ —	CONH ₂	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-18	—L—D	Me	—CH ₂ —	CN	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-19	—L—D	H	—CH ₂ —	CN	H	0	pyrazin-2-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-20	—L—D	H	—CH ₂ CH ₂ CH ₂ —	NH ₂	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-21	—L—D	Me	—CH ₂ —	CO ₂ Me	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-22	—L—D	H	—CH ₂ —	CO ₂ Me	2-F	1	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-23	—L—D	Me	—CH ₂ —	CO ₂ H	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-24	—L—D	H	—CH ₂ —	CO ₂ H	2-F	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-25	—L—D	H	—CH ₂ —	CO ₂ Et	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-26	—L—D	Me	—CH ₂ —	SMe	2-F	1	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-27	—L—D	Me	—CH ₂ —	SOMe	2-F	1	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-28	—L—D	Me	—CH ₂ —	SO ₂ Me	2-F	1	2-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-29	—L—D	H	—CH(CH ₃)CH ₂ —	CONH ₂	2-F	1	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-30	—L—D	H	—CH ₂ CH(CH ₃)—	CONH ₂	2-F	1	phenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 6-continued



compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
6-31	—L—D	Me	—CH ₂ CH ₂ CH ₂ —	NH ₂	2-F	1	3-thienyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-32	—L—D	Me	—CH ₂ —	CONH ₂	2-F	1	6-cyanopyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
6-33	—L—D	Me	—CH ₂ CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-34	—L—D	Me	—CH ₂ CH ₂ CH ₂ —	CO ₂ H	2-F	1	2-chloro-3-pyridyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-35	—L—D	Me	—CH ₂ CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
6-36	—L—D	H	—CH ₂ CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-37	—L—D	H	—CH ₂ —	CONH ₂	2-F	1	phenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
6-38	—L—D	Me	—CH ₂ —	CN	2-F	1	2-furyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-39	—L—D	H	—CH ₂ —	CN	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-40	—L—D	H	—CH ₂ CH ₂ CH ₂ —	NH ₂	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-41	—L—D	H	—CH ₂ —	OE _t	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-42	—L—D	Me	—CH ₂ CH(OH)CH ₂ —	OH	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-43	—L—D	H	—CH ₂ CH(CO ₂ C(CH ₃) ₃)—	CO ₂ C(CH ₃) ₃	2-F	1	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-44	—L—D	H	—CH ₂ CH(CO ₂ C(CH ₃) ₃)—	CO ₂ C(CH ₃) ₃	2-F	1	3-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-45	—L—D	H	—CH ₂ CH(CO ₂ C(CH ₃) ₃)—	CO ₂ C(CH ₃) ₃	2-F	1	4-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-46	—L—D	H	—CH ₂ CH ₂ CH ₂ —	OH	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-47	—L—D	H	—CH ₂ CH ₂ CH ₂ —	OCH ₂ Ph	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-48	—L—D	H	—CH ₂ CH(OH)CH ₂ —	OH	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-49	—L—D	H	—CH ₂ CH ₂ CH ₂ —	NHCONHMe	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-50	—L—D	H	—CH ₂ CH ₂ CH ₂ —	OCOMe	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-51	—L—D	H	—CH ₂ CH ₂ CH ₂ CH ₂ —	OCH ₂ Ph	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-52	—L—D	H	—CH ₂ CH ₂ CH ₂ CH ₂ —	OH	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-53	—L—D	H	—CH ₂ CH ₂ CH ₂ CH ₂ CH ₂ —	OCH ₂ Ph	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-54	—L—D	H	—CH ₂ CH ₂ CH ₂ CH ₂ CH ₂ —	OH	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-55	—L—D	H	—CH ₂ CH ₂ CH ₂ —	OH	H	0	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-56	—L—D	Me	—CH ₂ CH ₂ CH ₂ CH ₂ CH ₂ —	OCOCH ₂ Br	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-57	—L—D	H	—CH ₂ CH ₂ CH ₂ CH ₂ —	CHO	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-58	—L—D	H	—CH ₂ CH ₂ CH ₂ —	CHO	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
6-59	—L—D	H	—CH ₂ —	CHO	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 6-continued

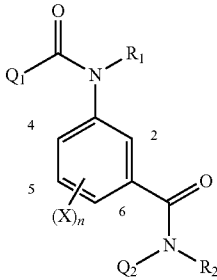
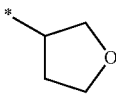
									
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂	
6-60	—L—D	H	—CH ₂ CH ₂ CH ₂ —	NHC(=NH)NH ₂	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
6-61	—L—D	H	—CH ₂ CH ₂ CH ₂ —	NHC(=NNO ₂)NH ₂	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
6-62	—L—D	Me	—CH ₂ CH ₂ CH ₂ —	NMe ₂	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
6-63	—L—D	H	—CH ₂ —		H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
6-64	—L—D	H	—CH ₂ CH ₂ CH ₂ —	CN	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
6-65	—L—D	H	—CH ₂ CH ₂ CH ₂ —	CONMe ₂	4-F	1	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
6-66	—L—D	H	—CH ₂ CH ₂ CH ₂ —	CONMe ₂	4-CN	1	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
6-67	—L—D	H	—CH ₂ CH ₂ CH ₂ —	CONMe ₂	2-NO ₂	1	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
6-68	—L—D	Me	—CH ₂ CH ₂ CH ₂ CH ₂ CH ₂ —	OCH ₂ Ph	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
6-69	—L—D	Me	—CH ₂ CH ₂ CH ₂ CH ₂ CH ₂ —	OH	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	

TABLE 7

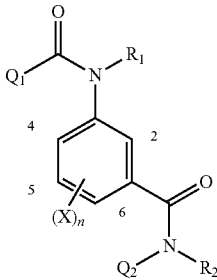
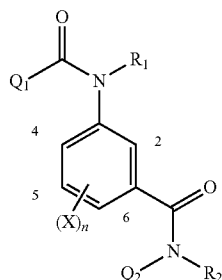
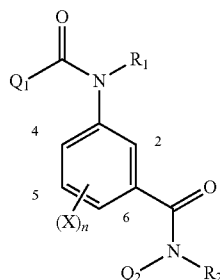
									
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂	
7-1	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
7-2	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
7-3	H	—L—D	—CH ₂ CH ₂ —	SO ₂ Me	H	0	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
7-4	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	3,5-dicyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
7-5	H	—L—D	—CH ₂ CH ₂ —	SOMe	H	0	2-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
7-6	H	—L—D	—CH ₂ CH ₂ —	CO ₂ Me	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
7-7	H	—L—D	—CH ₂ CH ₂ —	CN	H	0	2,6-difluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	

TABLE 7-continued



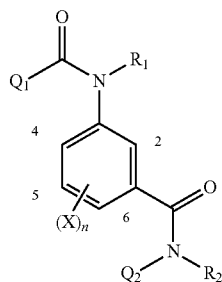
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
7-8	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	2-fluoro-4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-9	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chlorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-10	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-chlorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-11	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-nitrophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-12	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	2-methylphenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-13	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	pyridin-2-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-14	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	pyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-15	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	pyridin-4-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-16	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-17	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	6-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-18	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chloropyridin-4-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-19	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	pyrazin-2-yl	0	pyrazin-2-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-20	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	pyrimidin-5-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-21	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-22	H	—L—D	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-23	Me	—L—D	—CH ₂ CH ₂ —	OH	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-24	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-25	H	—L—D	—CH ₂ CH ₂ —	SOMe	2-F	1	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-26	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3,5-dicyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-27	Et	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-28	H	—L—D	—CH ₂ CH ₂ —	CN	2-F	1	4-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-29	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,6-difluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-30	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-fluoro-4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-31	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chlorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-32	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-chlorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-33	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-nitrophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-34	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-methylphenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-35	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	pyridin-2-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-36	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	pyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-37	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	pyridin-4-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-38	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 7-continued



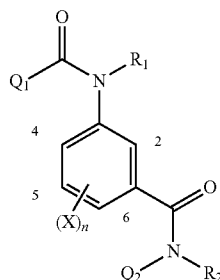
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
7-39	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	6-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-40	n-Pr	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-4-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-41	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	pyrazin-2-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-42	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	pyrimidin-5-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-43	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	4-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-44	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	4-F	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-45	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	4-F	1	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-46	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	4-F	1	2-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-47	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	4-F	1	2-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-48	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	4-CN	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-49	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	4-CN	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-50	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	4-CN	1	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-51	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	4-CN	1	2-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-52	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	4-CN	1	2-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-53	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2,6-dibromo-4-pentafluoroethyl-phenyl
7-54	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2,6-diiodo-4-pentafluoroethyl-phenyl
7-55	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
7-56	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
7-57	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-chloro-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-58	i-Pr	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-59	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-iodo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-60	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-61	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-iodo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-62	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-63	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-64	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-65	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2,6-ditrifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-66	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-67	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-68	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-69	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-70	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 7-continued



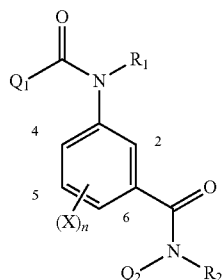
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
7-71	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-72	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-73	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-74	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-75	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-chloro-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-76	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-77	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-iodo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-78	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-79	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-iodo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-80	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2,6-dichloro-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-81	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-82	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-83	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2,6-ditrifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-84	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-85	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-86	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-87	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-iodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-88	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-89	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-90	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-91	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-92	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-93	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-94	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	3-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-95	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-96	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	2-fluorophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-97	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	phenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-98	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	3-cyanophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-99	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chloropyridin-3-yl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-100	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	2-fluorophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-101	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 7-continued



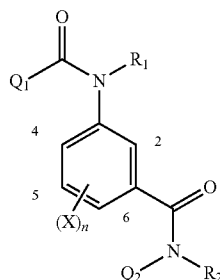
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
7-102	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	3-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-103	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-104	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	2-fluorophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-105	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-106	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-107	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chloropyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-108	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-109	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	phenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-110	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	3-cyanophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-111	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-112	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	2-fluorophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-113	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	phenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-114	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	3-cyanophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-115	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chloropyridin-3-yl	2,6-iodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-116	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	2-fluorophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-117	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-118	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	3-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-119	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-120	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	2-fluorophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-121	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-122	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-123	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chloropyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-124	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-125	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-dibromo-4-pentafluoroethyl-phenyl
7-126	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-diiodo-4-pentafluoroethyl-phenyl
7-127	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
7-128	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
7-129	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-chloro-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-130	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-131	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-iodo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-132	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-133	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-oyanophenyl	2-iodo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 7-continued



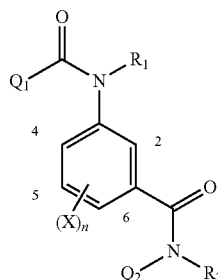
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
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7-135	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-136	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-137	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-ditrifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-138	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-139	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-140	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-141	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-142	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-143	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-144	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-145	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-146	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-147	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-chloro-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-148	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-149	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-iodo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-150	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-151	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-iodo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-152	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-dichloro-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-153	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-154	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-155	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-ditrifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-156	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-157	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-158	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-159	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-iodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-160	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-161	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-162	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-163	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-164	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

TABLE 7-continued



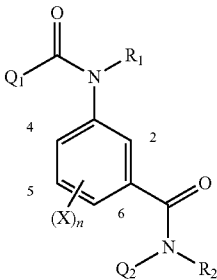
compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
7-165	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-166	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-167	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-168	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-fluorophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-169	H	—L—D	—CH ₂ CH ₂ —	SO ₂ Me	2-F	1	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-170	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-171	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3-cyanophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-172	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-173	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-fluorophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-174	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-175	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-176	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-177	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-fluorophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-178	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-179	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-180	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-181	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	4-F	1	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-182	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-183	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	4-F	1	3-cyanophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-184	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-185	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	4-CN	1	2-fluorophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-186	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-187	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3-cyanophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-188	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-189	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-fluorophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-190	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-191	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	4-CN	1	3-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-192	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-193	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-fluorophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-194	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-195	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

TABLE 7-continued



compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
7-196	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-197	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-198	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	0	6-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-199	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	6-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-200	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	6-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-201	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3,5-dicyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-202	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3,5-dicyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-203	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	pyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-204	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	pyridin-4-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-205	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-4-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-206	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	pyrazin-2-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-207	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	pyrimidin-5-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-208	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3-cyanophenyl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-209	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-210	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-211	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	6-cyanopyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-212	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-fluorophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-213	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,6-difluorophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-214	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-215	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-216	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	6-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-217	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-218	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-219	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
7-220	Me	—L—D	—CH ₂ —	CONH ₂	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-221	Me	—L—D	—CH ₂ —	CO ₂ Me	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-222	Me	—L—D	—CH ₂ —	CO ₂ H	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-223	Me	—L—D	—CH ₂ CH ₂ CH ₂ —	CONH ₂	2-F	1	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-224	H	—L—D	—CH ₂ CH(CH ₃)—	CONH ₂	2-F	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-225	H	—L—D	—CH(CH ₃)CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-226	H	—L—D	—CH ₂ CH ₂ CH ₂ —	CO ₂ Me	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 7-continued

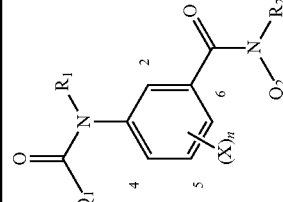


compound number	R ₁	R ₂	L	D	X	n	Q ₁	Q ₂
7-227	—L—D	H	—CH ₂ CH ₂ —	CONMe ₂	2-F	1	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-228	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	4-F	1	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-229	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	4-CN	1	Phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
7-230	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	2-NO ₂	1	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

TABLE 8

compound number	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₁	Q ₂
8-1	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-2	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-3	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	SO ₂ Me	-CH ₂ CH ₂ -	CONH ₂	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-4	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	OH	-CH ₂ CH ₂ -	CONH ₂	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-5	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	NH ₂	2-F	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-6	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	SOMe	-CH ₂ CH ₂ -	CONH ₂	2-F	1	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-7	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	SOMe	2-F	1	3,5-dicyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-8	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ -	CONH ₂	2-F	1	2-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-9	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ -	CN	-CH ₂ CH ₂ -	CONH ₂	2-F	1	4-fluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-10	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	SO ₂ Me	2-F	1	2,6-difluorophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-11	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	SO ₂ Et	-CH ₂ CH ₂ -	CONH ₂	2-F	1	2-fluoro-4-cyanophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 8-continued

compound number	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₁	Q ₂
										
8-12	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ -	CO ₂ Me	-CH ₂ -	CO ₂ Me	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-13	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ -	CO ₂ H	-CH ₂ -	CO ₂ H	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-14	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH(CH ₃)-	CONH ₂	2-F	1	4-nitrophenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-15	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	2-methylphenyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-16	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	OH	2-F	1	pyridin-2-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-17	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	pyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-18	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	pyridin-4-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-19	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	pyrazin-2-yl	-CH(CH ₃)CH ₂ -	CONH ₂	2-F	1	2-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-20	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	6-chloropyridin-3-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-21	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	SOMe	2-F	1	2-chloropyridin-4-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-22	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	pyrazin-2-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-23	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	pyrimidin-5-yl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

The diagram shows a benzene ring with a substituent X_h at position 5. An amide group $-C(=O)N(R_1)Q_1$ is attached at position 4, and another amide group $-C(=O)N(R_2)Q_2$ is attached at position 6. The positions 2, 3, 4, 5, and 6 are labeled on the ring.

compound number	R ₁	R ₂	I ₁	D ₁	L ₂	D ₂	X	n	Q ₁	Q ₂
8-24	-I ₁ -D ₁	-I ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CN	4-F	1	phenyl	2,6-dimethyl-4(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-25	-I ₁ -D ₁	-I ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	4-F	1	4-cyanophenyl	2,6-dimethyl-4(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-26	-I ₁ -D ₁	-I ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	4-F	1	3-cyanophenyl	2,6-dimethyl-4(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-27	-I ₁ -D ₁	-I ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	4-F	1	2-chloropyridin-3-yl	2,6-dimethyl-4(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-28	-I ₁ -D ₁	-I ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	SO ₂ Me	4-F	1	2-fluorophenyl	2,6-dimethyl-4(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-29	-I ₁ -D ₁	-I ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	4-CN	1	phenyl	2,6-dimethyl-4(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-30	-I ₁ -D ₁	-I ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	4-CN	1	4-cyanophenyl	2,6-dimethyl-4(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-31	-I ₁ -D ₁	-I ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	4-CN	1	3-cyanophenyl	2,6-dimethyl-4(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-32	-I ₁ -D ₁	-I ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	SO ₂ Et	4-CN	1	2-chloropyridin-3-yl	2,6-dimethyl-4(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-33	-I ₁ -D ₁	-I ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	4-CN	1	2-fluorophenyl	2,6-dimethyl-4(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-34	-I ₁ -D ₁	-I ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	4-cyanophenyl	2,6-dibromo-4-pentafluoroethyl-phenyl
8-35	-I ₁ -D ₁	-I ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	4-cyanophenyl	2,6-difluoro-4-pentafluoroethyl-phenyl
8-36	-I ₁ -D ₁	-I ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-pentafluoroethyl-phenyl

TABLE 8-continued

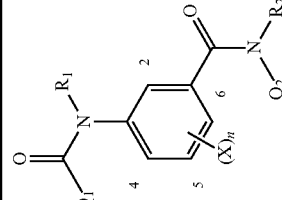
compound number	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₁	Q ₂
										
8-37	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-pentafluoromethyl-phenyl
8-38	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	OH	H	0	4-cyanophenyl	2-chloro-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-39	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-40	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	4-cyanophenyl	2-iodo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-41	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-42	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	4-cyanophenyl	2-iodo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-43	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	4-cyanophenyl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-44	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	4-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-45	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	4-cyanophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-46	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	4-cyanophenyl	2,6-difluoro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-47	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-48	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	11	0	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 8-continued

compound number	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₁	Q ₂
8-49	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-50	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH(CH ₃)CH(CH ₃)-	CONH ₂	1	0	4-cyanophenyl	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-51	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-52	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-53	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-54	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-55	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	4-cyanophenyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-56	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	4-cyanophenyl	2-chloro-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-57	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-58	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	4-cyanophenyl	2-iodo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-59	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

TABLE 8-continued

compound number	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₁	Q ₂
8-60	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-iodo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-81	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2,6-dichloro-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-62	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-63	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-64	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2,6-ditrifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-65	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	trifluoromethyl-(propyl)-phenyl 2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-66	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	SO ₂ Me	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-67	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-68	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	trifluoromethyl-(propyl)-phenyl 2-bromo-6-iodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-69	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-70	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylsulfinyl-trifluoromethyl-(propyl)-phenyl 4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-(propyl)-phenyl

TABLE 8-continued

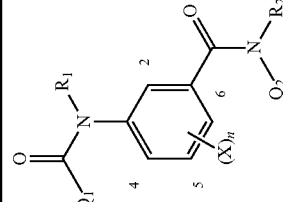
compound number	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₁	Q ₂
										
8-71	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-72	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	4-cyanophenyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-73	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	4-cyanophenyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-74	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-75	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	3-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-76	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-77	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2-fluorophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-78	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	phenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-78	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	3-cyanophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-80	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2-chloropyridin-3-yl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-81	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2-fluorophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 8-continued

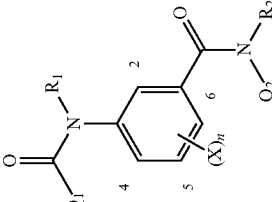
compound number											Q ₂
	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₁		
8-82	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
8-83	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	3-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
8-84	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
8-85	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2-fluorophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
8-86	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
8-87	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
8-88	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2-chloropyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
8-89	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
8-90	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	phenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
8-91	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	3-cyanophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
8-92	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
8-93	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2-fluorophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	

TABLE 8-continued

compound number	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₁	Q ₂
8-94	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	H	0	phenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-95	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	H	0	3-cyanophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-96	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chloropyridin-3-yl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-97	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	H	0	2-fluorophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-98	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	H	0	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-99	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	H	0	3-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-100	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-101	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	H	0	2-fluorophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-102	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	H	0	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-103	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	H	0	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-104	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	H	0	2-chloropyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-105	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	H	0	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

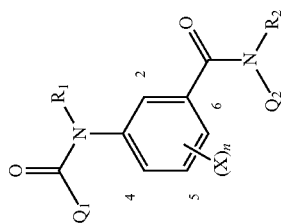


TABLE 8-continued

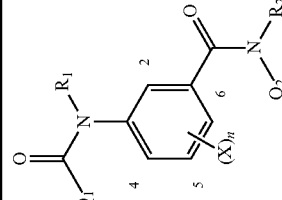
compound number	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₁	Q ₂
										
8-106	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	4-cyanophenyl	2,6-dibromo-4-pentafluoroethyl-phenyl
8-107	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	4-cyanophenyl	2,6-diiodo-4-pentafluoroethyl-phenyl
8-108	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
8-109	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
8-110	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	4-cyanophenyl	2-chloro-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-111	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-112	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	4-cyanophenyl	2-iodo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-113	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-114	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	4-cyanophenyl	2-iodo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-115	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	4-cyanophenyl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-116	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	4-cyanophenyl	trifluoromethyl-ethyl-phenyl
8-117	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	4-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-118	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	4-cyanophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 8-continued

compound number	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₁	Q ₂
8-119	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-120	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-121	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-122	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-123	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-124	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-125	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-ethyl-phenyl
8-126	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-ethyl-phenyl
8-127	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-128	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-129	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

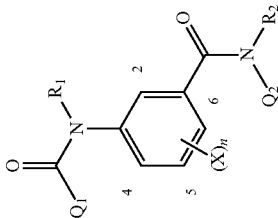


TABLE 8-continued

compound number	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₁	Q ₂
8-130	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-iodo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-131	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-132	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-iodo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-133	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-dichloro-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-134	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-135	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-136	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-difluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-137	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-138	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-139	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-140	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-iodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

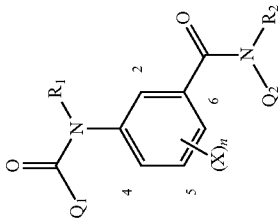


TABLE 8-continued

compound number	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₁	Q ₂
8-141	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,3,3,3-hexafluoro-1-propyl)-phenyl
8-142	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-143	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-144	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-145	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-146	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-147	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3-cyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-148	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-149	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-fluorophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

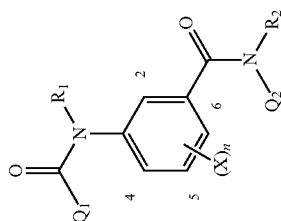


TABLE 8-continued

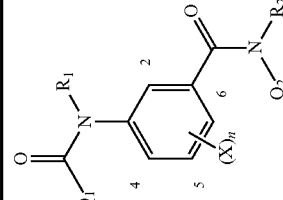
compound number	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₁	Q ₂
										
8-150	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	SO ₂ Me	-CH ₂ CH ₂ -	CONH ₂	2-F	1	phenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-151	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	phenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-152	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	3-cyanophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-153	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	2-chloropyridin-3-yl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-154	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	2-fluorophenyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-155	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-156	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	3-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-157	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-158	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	2-fluorophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-159	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-160	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-161	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	2-chloropyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 8-continued

compound number	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₁	Q ₂
8-162	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	4-F	1	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-163	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-164	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	4-F	1	3-cyanophenyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-165	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-166	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	4-CN	1	2-fluorophenyl	2,5-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-167	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-168	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3-cyanophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-169	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-170	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-fluorophenyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-171	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-172	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	4-CN	1	3-cyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-173	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

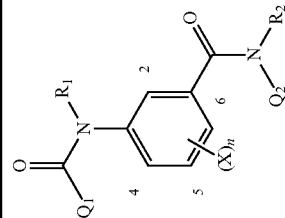


TABLE 8-continued

compound number	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₁	Q ₂
8-174	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-fluorophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-175	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-176	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-177	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-178	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-fluorophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-179	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	H	0	6-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-180	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	6-chloropyridin-3-yl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-131	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	6-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-182	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3,5-dicyanophenyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-183	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3,5-dicyanophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-184	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	pyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-185	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	pyridin-4-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

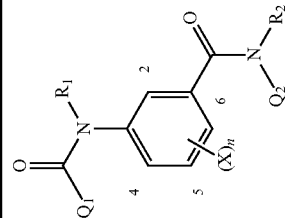


TABLE 8-continued

compound number	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₁	Q ₂
8-186	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-4-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-187	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	pyrazin-2-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-188	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	pyrimidin-5-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-189	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3-cyanophenyl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-190	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-191	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-192	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	6-cyanopyridin-3-yl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-193	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-fluorophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-194	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,6-difluorophenyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-195	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2-chloropyridin-3-yl	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-196	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-197	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	6-chloropyridin-3-yl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

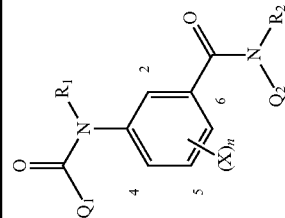


TABLE 8-continued

compound number	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₁	Q ₂
8-198	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-188	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-200	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-201	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-202	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ —	CO ₂ Me	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-203	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ —	CO ₂ H	—CH ₂ CH ₂ —	CONH ₂	2-F	1	phenyl	(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-204	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3-cyanophenyl	(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-205	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ (CH ₃)—	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-206	—L ₁ —D ₁	—L ₂ —D ₂	—CH(CH ₃)CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	4-cyanophenyl	(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
8-207	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-NO ₂	1	phenyl	(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
8-208	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONMe ₂	—CH ₂ CH ₂ —	CONMe ₂	2-F	1	4-cyanophenyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

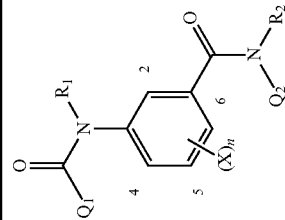
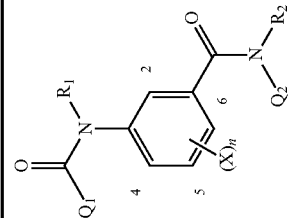
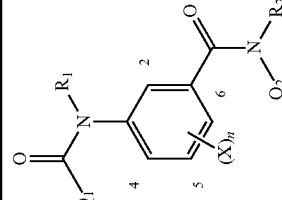


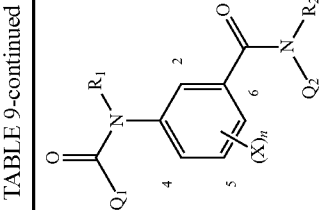
TABLE 9



compound number	R ₁	R ₂	L1	D1	L2	D2	X	n	Q ₃	Q ₂
9-1	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	methyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-2	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	ethyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-3	-L ₁ -D ₁	Me	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	i-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-4	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	n-butyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-5	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	SO ₂ Me	-	-	H	0	i-butyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-6	-L ₁ -D ₁	Me	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	s-butyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-7	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	t-butyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-8	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	vinyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-9	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	allyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-10	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	SOMe	-	-	H	0	benzyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-11	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	OH	-	-	H	0	chloromethyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-12	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	2,2,2-trichloroethyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-13	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	3,3,3-trifluoro-n-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-14	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CO ₂ Me	-	-	H	0	1,3-difluoro-2-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-15	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CN	-	-	H	0	cyclohexyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-16	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	NH ₂	-	-	2-F	1	methyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 9-continued

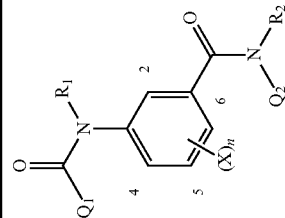
compound number	R ₁	R ₂	L1	D1	L2	D2	X	n	Q3			Q2
9-17	-L ₁ -D ₁	H	-CH2CH2-	CONH2	-	-	2-F	1	ethyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl		2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-18	-L ₁ -D ₁	H	-CH2CH2-	CONH2	-	-	2-F	1	i-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl		2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-19	-L ₁ -D ₁	H	-CH2CH2-	CONH2	-	-	2-F	1	n-butyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl		2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-20	-L ₁ -D ₁	H	-CH2CH2-	CONH2	-	-	2-F	1	i-butyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl		2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-21	-L ₁ -D ₁	H	-CH2CH2-	CONH2	-	-	2-F	1	s-butyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl		2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-22	-L ₁ -D ₁	H	-CH2CH2-	CONH2	-	-	2-F	1	t-butyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl		2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-23	-L ₁ -D ₁	Me	-CH2CH2-	CONH2	-	-	2-F	1	vinyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl		2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-24	-L ₁ -D ₁	H	-CH2CH2-	CONH2	-	-	2-F	1	allyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl		2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-25	-L ₁ -D ₁	H	-CH2CH2-	CONH2	-	-	2-F	1	benzyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl		2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-26	-L ₁ -D ₁	Me	-CH2CH2-	CO2H	-	-	2-F	1	chloromethyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl		2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-27	-L ₁ -D ₁	H	-CH2CH2-	CONH2	-	-	2-F	1	2,2,2-trichloroethyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl		2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-28	-L ₁ -D ₁	H	-CH2CH2-	CONH2	-	-	2-F	1	3,3,3-trifluoro-n-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl		2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-29	-L ₁ -D ₁	H	-CH2CH2-	CONH2	-	-	2-F	1	1,3-difluoro-2-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl		2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-30	-L ₁ -D ₁	H	-CH2CH2-	CONMe2	-	-	2-F	1	cyclohexyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl		2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-31	-L ₁ -D ₁	H	-CH2CH2-	CONH2	-	-	4-F	1	i-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl		2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-32	-L ₁ -D ₁	H	-CH2CH2-	CONH2	-	-	4-F	1	2,2,2-trichloroethyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl		2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-33	-L ₁ -D ₁	H	-CH2CH2-	CONH2	-	-	4-F	1	3,3,3-trifluoro-n-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl		2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

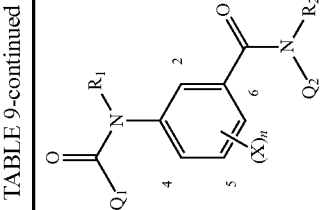


compound number	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₃	Q ₂
9-34	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	4-CN	1	i-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoroethyl-ethyl)-phenyl
9-35	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	4-CN	1	2,2,2-trichloroethyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoroethyl-ethyl)-phenyl
9-36	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	4-CN	1	3,3,3-trifluoro-n-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoroethyl-ethyl)-phenyl
9-37	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	2,2,2-trichloroethyl	2,6-dibromo-4-pentafluoroethyl-phenyl
9-38	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	3,3,3-trifluoro-n-propyl	2,6-diiodo-4-pentafluoroethyl-phenyl
9-39	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	2,2,2-trichloroethyl	2-bromo-6-trifluoroethyl-4-pentafluoroethyl-phenyl
9-40	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	3,3,3-trifluoro-n-propyl	2-iodo-6-trifluoroethyl-4-pentafluoroethyl-phenyl
9-41	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	2,2,2-trichloroethyl	2-chloro-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoroethyl)-phenyl
9-42	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	3,3,3-trifluoro-n-propyl	2-bromo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoroethyl)-phenyl
9-43	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	2,2,2-trichloroethyl	2-iodo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoroethyl)-phenyl
9-44	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	SO ₂ NH ₂	-	-	H	0	2,2,2-trichloroethyl	2-bromo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoroethyl)-phenyl
9-45	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	SO ₂ Me	-	-	H	0	2,2,2-trichloroethyl	2-iodo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoroethyl)-phenyl
9-46	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	2,2,2-trichloroethyl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoroethyl)-phenyl
9-47	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	2,2,2-trichloroethyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoroethyl)-phenyl

TABLE 9-continued

compound number	R ₁	R ₂	L1	D1	L2	D2	X	n	Q ₃	Q ₂	
9-48	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	2,2,2- trichloroethyl	2,6-diiodo-4-(1,2,2,2- tetrafluoro-1-trifluoromethyl- ethyl)-phenyl	
9-49	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	2,2,2- trichloroethyl	2,6-ditrifluoromethyl-4- (1,2,2,2-tetrafluoro-1- trifluoromethyl-ethyl)-phenyl	
9-50	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	2,2,2- trichloroethyl	2-bromo-6-trifluoromethyl-4- (1,2,2,2-tetrafluoro-1- trifluoromethyl-ethyl)-phenyl	
9-51	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	2,2,2- trichloroethyl	2-iodo-6-trifluoromethyl-4- (1,2,2,2-tetrafluoro-1- trifluoromethyl-ethyl)-phenyl	
9-52	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	2,2,2- trichloroethyl	2-bromo-6-trifluoromethoxy-4- (1,2,2,2-tetrafluoro-1- trifluoromethyl-ethyl)-phenyl	
9-53	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	2,2,2- trichloroethyl	2-bromo-6-iodo-4-(1,2,2,2- tetrafluoro-1-trifluoromethyl- ethyl)-phenyl	
9-54	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	2,2,2- trichloroethyl	2-bromo-6-trifluoromethylthio- 4-(1,2,2,2-tetrafluoro-1- trifluoromethyl-ethyl)-phenyl	
9-55	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	2,2,2- trichloroethyl	2-bromo-6- trifluoromethylsulfinyl-4- (1,2,2,2-tetrafluoro-1- trifluoromethyl-ethyl)-phenyl	
9-56	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	2,2,2- trichloroethyl	2-bromo-6- trifluoromethylsulfonyl-4- (1,2,2,2-tetrafluoro-1- trifluoromethyl-ethyl)-phenyl	
9-57	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	2,2,2- trichloroethyl	2-bromo-6-pentafluoroethyl-4- (1,2,2,2-tetrafluoro-1- trifluoromethyl-ethyl)-phenyl	
9-58	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	2,2,2- trichloroethyl	2-iodo-6-pentafluoroethyl- (1,2,2,2-tetrafluoro-1- trifluoromethyl-ethyl)-phenyl	

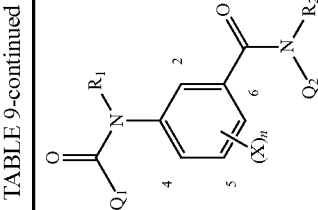




compound number	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₃	Q ₂
9-59	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	2,2,2-trichloroethyl	2-chloro-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-60	—L ₁ —D ₁	H	—CH ₂ CH ₂ CH ₂ —	CONH ₂	—	—	H	0	2,2,2-trichloroethyl	2-bromo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-61	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	2,2,2-trichloroethyl	2-iodo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-62	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	2,2,2-trichloroethyl	2-bromo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-63	—L ₁ —D ₁	Me	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	2,2,2-trichloroethyl	2-iodo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-64	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	2,2,2-trichloroethyl	2,6-dichloro-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-65	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	2,2,2-trichloroethyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-66	—L ₁ —D ₁	Me	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	2,2,2-trichloroethyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-67	—L ₁ —D ₁	H	—CH ₂ —	CONH ₂	—	—	H	0	2,2,2-trichloroethyl	2,6-difluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-68	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	2,2,2-trichloroethyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-69	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	2,2,2-trichloroethyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

TABLE 9-continued

compound number	R ₁	R ₂	L1	D1	L2	D2	X	n	Q ₃	Q ₂
9-70	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	2,2,2-trichloroethyl	2-dibromo-6-trifluoromethoxy-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl- <i>n</i> -propyl)-phenyl
9-71	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	2,2,2-trichloroethyl	2-bromo-6-iodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl- <i>n</i> -propyl)-phenyl
9-72	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	2,2,2-trichloroethyl	2-bromo-6-iodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl- <i>n</i> -propyl)-phenyl
9-73	—L ₁ —D ₁	H	—CH ₂ CH(CH ₃)—	CONH ₂	—	—	H	0	2,2,2-trichloroethyl	2-bromo-6-iodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl- <i>n</i> -propyl)-phenyl
9-74	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	2,2,2-trichloroethyl	2-bromo-6-iodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl- <i>n</i> -propyl)-phenyl
9-75	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	2,2,2-trichloroethyl	2-bromo-6-iodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl- <i>n</i> -propyl)-phenyl
9-76	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	2,2,2-trichloroethyl	2-bromo-6-iodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl- <i>n</i> -propyl)-phenyl
9-77	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	<i>i</i> -propyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl- <i>n</i> -propyl)-phenyl
9-78	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	3,3,3-trifluoro- <i>n</i> -propyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl- <i>n</i> -propyl)-phenyl
9-79	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	<i>i</i> -propyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl- <i>n</i> -propyl)-phenyl
9-80	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	3,3,3-trifluoro- <i>n</i> -propyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl- <i>n</i> -propyl)-phenyl



compound number	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₃	Q ₂
9-81	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	i-propyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-82	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	3,3,3-trifluoro-n-propyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-83	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	i-propyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-84	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	3,3,3-trifluoro-n-propyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-85	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	i-propyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-86	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	3,3,3-trifluoro-n-propyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-87	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	i-propyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-88	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	3,3,3-trifluoro-n-propyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-89	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	i-propyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-90	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	3,3,3-trifluoro-n-propyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-91	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	H	0	i-propyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

TABLE 9-continued

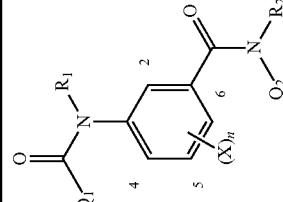
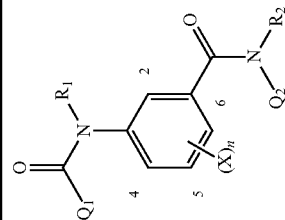
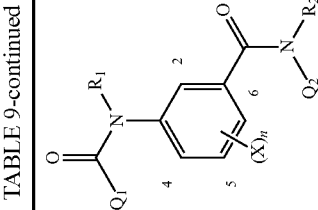
compound number	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₃			Q ₂
9-92	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	H	0	3,3,3-trifluoro- n-propyl			2-iodo-6-trifluoromethyl-4- (1,2,2,3,3,3-hexafluoro-1- trifluoromethyl-propyl)-phenyl
9-93	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	2,2,2- trichloroethyl			2,6-dibromo-4-pentafluoroethyl- phenyl
9-94	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	3,3,3-trifluoro- n-propyl			2,6-diiodo-4-pentafluoroethyl- phenyl
9-95	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	2,2,2- trichloroethyl			2-bromo-6-trifluoromethyl-4- pentafluoroethyl-phenyl
9-96	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	3,3,3-trifluoro- n-propyl			2-iodo-6-trifluoromethyl-4- pentafluoroethyl-phenyl
9-97	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	2,2,2- trichloroethyl			2-chloro-6-methyl-4-(1,2,2,2- tetrafluoro-1-trifluoromethyl- ethyl)-phenyl
9-98	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	3,3,3-trifluoro- n-propyl			2-bromo-6-methyl-4-(1,2,2,2- tetrafluoro-1-trifluoromethyl- ethyl)-phenyl
9-99	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	2,2,2- trichloroethyl			2-iodo-6-methyl-4-(1,2,2,2- tetrafluoro-1-trifluoromethyl- ethyl)-phenyl
9-100	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	2,2,2- trichloroethyl			2-bromo-6-ethyl-4-(1,2,2,2- tetrafluoro-1-trifluoromethyl- ethyl)-phenyl
9-101	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	2,2,2- trichloroethyl			2-iodo-6-ethyl-4-(1,2,2,2- tetrafluoro-1-trifluoromethyl- ethyl)-phenyl
9-102	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	2,2,2- trichloroethyl			2,6-dichloro-4-(1,2,2,2-tetrafluoro- 1-trifluoromethyl-ethyl)-phenyl
9-103	—L ₁ —D ₁	Me	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	2,2,2- trichloroethyl			2,6-dibromo-4-(1,2,2,2-tetrafluoro- 1-trifluoromethyl-ethyl)-phenyl
9-104	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	2,2,2- trichloroethyl			2,6-diiodo-4-(1,2,2,2-tetrafluoro-1- trifluoromethyl-ethyl)-phenyl
9-105	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	2,2,2- trichloroethyl			2,6-ditrifluoromethyl-4-(1,2,2,2- tetrafluoro-1-trifluoromethyl-ethyl)- phenyl

TABLE 9-continued

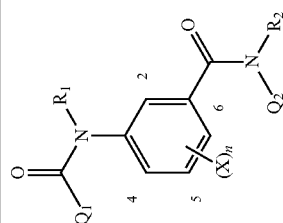
compound number	R ₁	R ₂	L1	D1	L2	D2	X	n	Q ₃	Q ₂	
9-106	—L ₁ —D ₁	Me	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	2,2,2- trichloroethyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-107	—L ₁ —D ₁	H	—CH ₂ —	CONH ₂	—	—	2-F	1	2,2,2- trichloroethyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-108	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	2,2,2- trichloroethyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-109	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	2,2,2- trichloroethyl	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-110	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	2,2,2- trichloroethyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-111	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	2,2,2- trichloroethyl	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-112	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	2,2,2- trichloroethyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-113	—L ₁ —D ₁	H	—CH ₂ CH(CH ₃)—	CONH ₂	—	—	2-F	1	2,2,2- trichloroethyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-114	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	2,2,2- trichloroethyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-115	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	2,2,2- trichloroethyl	2-chloro-6-methyl-4-(1,2,2,3,3,3-hexfluoro-1-trifluoromethyl-propyl)-phenyl	
9-116	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	2,2,2- trichloroethyl	2-bromo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	





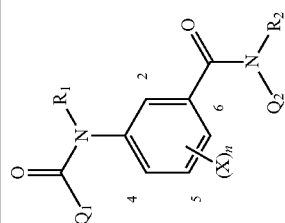
compound number	R ₁	R ₂	L1	D1	L2	D2	X	n	Q ₃	Q ₂
9-117	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	2-F	1	2,2,2-trichloroethyl	2-iodo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-118	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CN	-	-	2-F	1	2,2,2-trichloroethyl	2-bromo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-119	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	2-F	1	2,2,2-trichloroethyl	2-iodo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-120	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	2-F	1	2,2,2-trichloroethyl	2,6-dichloro-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-121	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	2-F	1	2,2,2-trichloroethyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-122	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	2-F	1	2,2,2-trichloroethyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-123	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	2-F	1	2,2,2-trichloroethyl	2,6-difluoro-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-124	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	2-F	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-125	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	2-F	1	2,2,2-trichloroethyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-126	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	2-F	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-127	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	2-F	1	2,2,2-trichloroethyl	2-bromo-6-iodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

TABLE 9-continued

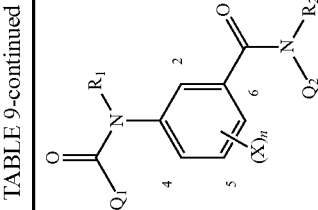


compound number	R ₁	R ₂	L1	D1	L2	D2	X	n	Q ₃	Q ₂
9-128	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	2-F	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-129	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	2-F	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-130	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	2-F	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-131	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	2-F	1	2,2,2-trichloroethyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-132	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	2-F	1	2,2,2-trichloroethyl	2-iodo-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-133	-L ₁ -D ₁	Me	-CH ₂ CH ₂ -	CONH ₂	-	-	2-F	1	i-propyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-134	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	2-F	1	3,3,3-trifluoro-n-propyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-135	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	2-F	1	i-propyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-136	-L ₁ -D ₁	Me	-CH ₂ CH ₂ -	CONH ₂	-	-	2-F	1	3,3,3-trifluoro-n-propyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-137	-L ₁ -D ₁	H	-CH ₂ -	CONH ₂	-	-	2-F	1	i-propyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-138	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	2-F	1	3,3,3-trifluoro-n-propyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-139	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	2-F	1	i-propyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-140	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	2-F	1	3,3,3-trifluoro-n-propyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 9-continued

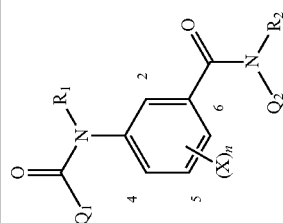


compound number	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₃	Q ₂
9-141	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	i-propyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-142	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	3,3,3-trifluoro-n-propyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-143	—L ₁ —D ₁	H	—CH ₂ CH(CH ₃)—	CONH ₂	—	—	2-F	1	i-propyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-144	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	3,3,3-trifluoro-n-propyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-145	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	i-propyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-146	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	3,3,3-trifluoro-n-propyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-147	—L ₁ —D ₁	H	—CH ₂ —	CONH ₂	—	—	2-F	1	i-propyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-148	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	3,3,3-trifluoro-n-propyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-149	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-150	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-151	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-F	1	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-152	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	4-F	1	2,2,2-trichloroethyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl



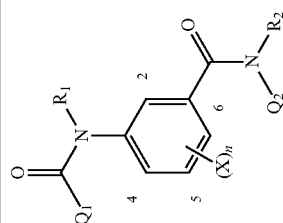
compound number	R ₁	R ₂	L1	D1	L2	D2	X	n	Q ₃	Q ₂
9-153	—L ₁ —D ₁	H	—CH ₂ CH(CH ₃)—	CONH ₂	—	—	4-F	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-154	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	4-F	1	2,2,2-trichloroethyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-155	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	4-F	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-156	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	4-F	1	2,2,2-trichloroethyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-157	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	4-CN	1	2,2,2-trichloroethyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-158	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CN	—	—	4-CN	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-159	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	4-CN	1	2,2,2-trichloroethyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-160	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	4-CN	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-161	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	4-CN	1	2,2,2-trichloroethyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-162	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-NO ₂	1	2,2,2-trichloroethyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-163	—L ₁ —D ₁	H	—CH ₂ CH ₂ —	CONH ₂	—	—	2-NO ₂	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 9-continued



compound number	R ₁	R ₂	L1	D1	L2	D2	X	n	Q ₃	Q ₂
9-164	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	2-NO ₂	1	2,2,2-trichloroethyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-165	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	2-NO ₂	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-166	-L ₁ -D ₁	H	-CH ₂ CH ₂ -	CONH ₂	-	-	2-NO ₂	1	2,2,2-trichloroethyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-167	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	H	0	methyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-168	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	H	0	ethyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-169	Me	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	H	0	i-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-170	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	H	0	n-butyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-171	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	SO ₂ Me	H	0	i-butyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-172	Me	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	H	0	s-butyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-173	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	H	0	t-butyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-174	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	H	0	vinyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-175	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	H	0	allyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-176	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	SOMe	H	0	benzyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-177	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	OH	H	0	chloromethyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-178	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-trichloroethyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-179	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	H	0	3,3,3-trifluoro-n-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 9-continued



compound number	R ₁	R ₂	L1	D1	L2	D2	X	n	Q ₃	Q ₂
9-180	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CO ₂ Me	H	0	1,3-difluoro-2-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-181	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CN	H	0	cyclohexyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-182	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	NH ₂	2-F	1	methyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-183	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	2-F	1	ethyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-184	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	2-F	1	i-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-185	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	2-F	1	n-butyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-186	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	2-F	1	i-butyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-187	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	2-F	1	s-butyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-188	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	2-F	1	t-butyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-189	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	2-F	1	vinyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-190	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	2-F	1	allyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-191	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	2-F	1	benzyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-192	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CO ₂ H	2-F	1	chloromethyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-193	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	2-F	1	2,2,2-trichloroethyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-194	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	2-F	1	3,3,3-trifluoro-n-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-195	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	2-F	1	1,3-difluoro-2-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-196	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONMe ₂	2-F	1	cyclohexyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 9-continued

compound number	R ₁	R ₂	L1	D1	L2	D2	X	n	Q ₃	Q ₂
9-197	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	4-F	1	i-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-198	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	4-F	1	2,2,2-trichloroethyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-199	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	4-F	1	3,3,3-trifluoro-n-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-200	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	4-CN	1	i-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-201	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	4-CN	1	2,2,2-trichloroethyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-202	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	4-CN	1	3,3,3-trifluoro-n-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-203	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2,6-dibromo-4-pentafluoroethyl-phenyl
9-204	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	3,3,3-trifluoro-n-propyl	2,6-diiodo-4-pentafluoroethyl-phenyl
9-205	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2-bromo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
9-206	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	3,3,3-trifluoro-n-propyl	2-iodo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
9-207	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2-chloro-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-208	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	3,3,3-trifluoro-n-propyl	2-bromo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-209	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2-iodo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-210	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2-bromo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-211	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2-iodo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

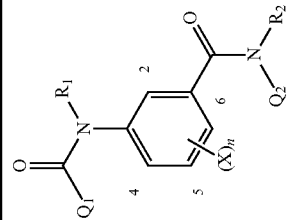


TABLE 9-continued

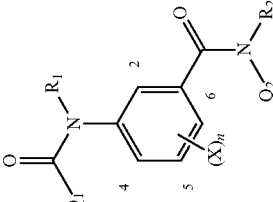
compound number											Q ₂
	R ₁	R ₂	L1	D1	L2	D2	X	n	Q ₃		
9-212	H	—I ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-213	H	—I ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-214	H	—I ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-215	H	—I ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2,6-ditrifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-216	H	—I ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-217	H	—I ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-218	H	—I ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-219	H	—I ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-220	H	—I ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-221	H	—I ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-222	H	—I ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-223	H	—I ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	

TABLE 9-continued

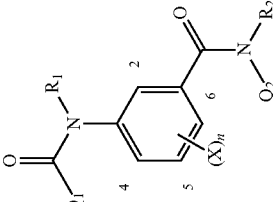
compound number											Q ₂
	R ₁	R ₂	L1	D1	L2	D2	X	n	Q ₃		
9-224	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-225	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2-chloro-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
9-226	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2-bromo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
9-227	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2-iodo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
9-228	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2-bromo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
9-229	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2-iodo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
9-230	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2,6-dichloro-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
9-231	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
9-232	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
9-233	H	—L ₂ —D ₂	—	—	—CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2,6-difluoro-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
9-234	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	

TABLE 9-continued

compound number	R ₁	R ₂	L1	D1	L2	D2	X	n	Q ₃	Q ₂
9-235	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-236	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-237	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2-bromo-6-iodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-238	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-239	H	—L ₂ —D ₂	—	—	—CH ₂ CH(CH ₃)—	CONH ₂	H	0	2,2,2-trichloroethyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-240	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-241	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-242	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	2,2,2-trichloroethyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-243	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	i-propyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-244	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	3,3,3-trifluoro-i-propyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-245	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	i-propyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-246	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	3,3,3-trifluoro-i-propyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-247	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	i-propyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

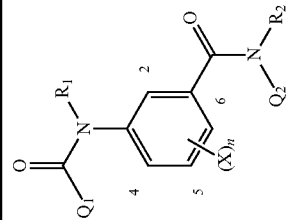


TABLE 9-continued

compound number	R ₁	R ₂	L1	D1	L2	D2	X	n	Q ₃	Q ₂
9-248	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	3,3,3-trifluoro-n-propyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-249	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	i-propyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-250	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	3,3,3-trifluoro-n-propyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-251	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	i-propyl	2,6-dibromo-4-(1,2,2,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-252	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	3,3,3-trifluoro-n-propyl	2,6-dibromo-4-(1,2,2,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-253	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	i-propyl	2,6-diiodo-4-(1,2,2,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-254	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	3,3,3-trifluoro-n-propyl	2,6-diiodo-4-(1,2,2,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-255	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	i-propyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-256	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	3,3,3-trifluoro-n-propyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-257	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	i-propyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-258	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	H	0	3,3,3-trifluoro-n-propyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-259	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2,6-dibromo-4-pentafluoroethyl-phenyl
9-260	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3,3,3-trifluoro-n-propyl	2,6-diiodo-4-pentafluoroethyl-phenyl

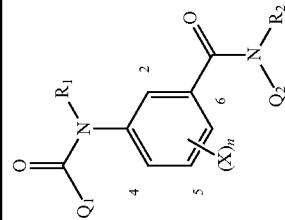


TABLE 9-continued

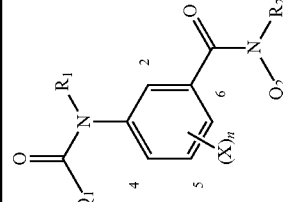
compound number										
	R ₁	R ₂	L1	D1	L2	D2	X	n	Q ₃	Q ₂
9-261	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
9-262	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-iodo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
9-263	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-chloro-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-264	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-bromo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-265	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-iodo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-266	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-bromo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-267	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-iodo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-268	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-269	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-270	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-271	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2,6-difluoro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-272	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-273	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 9-continued

compound number	R ₁	R ₂	L1	D1	L2	D2	X	n	Q ₃	Q ₂
9-274	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-275	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-276	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-277	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-278	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-279	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-280	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-281	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONMe ₂	2-F	1	2,2,2-trichloroethyl	2-chloro-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-282	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-bromo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-283	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-iodo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-284	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CN	2-F	1	2,2,2-trichloroethyl	2-bromo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

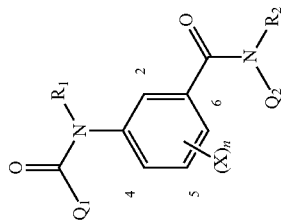


TABLE 9-continued

compound number	R ₁	R ₂	L1	D1	L2	D2	X	n	Q ₃	Q ₂	
9-285	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2- trichloroethyl	2-iodo-6-ethyl-4- (1,2,2,3,3,3-hexafluoro-1- trifluoromethyl-propyl)-phenyl	
9-286	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2- trichloroethyl	2,6-dichloro-4- (1,2,2,3,3,3-hexafluoro-1- trifluoromethyl-propyl)-phenyl	
9-287	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2- trichloroethyl	2,6-dibromo-4-(1,2,2,3,3,3- hexafluoro-1-trifluoromethyl- propyl)-phenyl	
9-288	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2- trichloroethyl	2,6-diiodo-4-(1,2,2,3,3,3- hexafluoro-1-trifluoromethyl- propyl)-phenyl	
9-289	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2- trichloroethyl	2,6-ditrifluoromethyl-4- (1,2,2,3,3,3-hexafluoro-1- trifluoromethyl-propyl)-phenyl	
9-290	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2- trichloroethyl	2-bromo-6-trifluoromethyl-4- (1,2,2,3,3,3-hexafluoro-1- trifluoromethyl-propyl)-phenyl	
9-291	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2- trichloroethyl	2-iodo-6-trifluoromethyl-4- (1,2,2,3,3,3-hexafluoro-1- trifluoromethyl-propyl)-phenyl	
9-292	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2- trichloroethyl	2-bromo-6-trifluoromethoxy-4- (1,2,2,3,3,3-hexafluoro-1- trifluoromethyl-propyl)-phenyl	
9-293	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2- trichloroethyl	2-bromo-6-iodo-4-(1,2,2,3,3,3- hexafluoro-1-trifluoromethyl- propyl)-phenyl	
9-294	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2- trichloroethyl	2-bromo-6-trifluoromethylthio-4- (1,2,2,3,3,3-hexafluoro-1- trifluoromethyl-propyl)-phenyl	
9-295	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2- trichloroethyl	2-bromo-6-trifluoromethylsulfinyl- 4-(1,2,2,3,3,3-hexafluoro-1- trifluoromethyl-propyl)-phenyl	

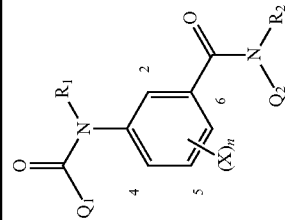


TABLE 9-continued

compound number	R ₁	R ₂	L1	D1	L2	D2	X	n	Q ₃	Q ₂	
9-296	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
9-297	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
9-298	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
9-299	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	i-propyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-300	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ CH ₂ —	CONH ₂	2-F	1	3,3,3-trifluoro-n-propyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-301	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	i-propyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-302	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3,3,3-trifluoro-n-propyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-303	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-304	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3,3,3-trifluoro-n-propyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-305	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	i-propyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-306	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3,3,3-trifluoro-n-propyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-307	H	—L ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-F	1	i-propyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	

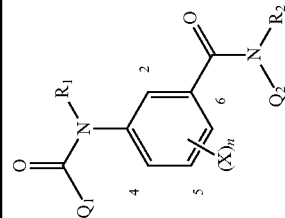
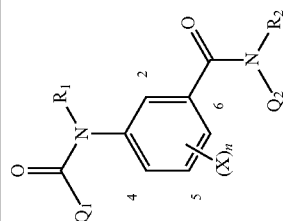


TABLE 9-continued



compound number	R ₁	R ₂	L1	D1	L2	D2	X	n	Q ₃	Q ₂
9-308	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	2-F	1	3,3,3-trifluoro- n-propyl	2,6-dibromo-4-(1,2,2,3,3,3- hexafluoro-1-trifluoromethyl- propyl)-phenyl
9-309	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	2-F	1	i-propyl	2,6-diiodo-4-(1,2,2,3,3,3- hexafluoro-1-trifluoromethyl- propyl)-phenyl
9-310	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	2-F	1	3,3,3-trifluoro- n-propyl	2,6-diiodo-4-(1,2,2,3,3,3- hexafluoro-1-trifluoromethyl- propyl)-phenyl
9-311	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	2-F	1	i-propyl	2-bromo-6-trifluoromethyl-4- (1,2,2,3,3,3-hexafluoro-1- trifluoromethyl-propyl)-phenyl
9-312	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	2-F	1	3,3,3-trifluoro- n-propyl	2-bromo-6-trifluoromethyl-4- (1,2,2,3,3,3-hexafluoro-1- trifluoromethyl-propyl)-phenyl
9-313	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	2-F	1	i-propyl	2-iodo-6-trifluoromethyl-4- (1,2,2,3,3,3-hexafluoro-1- trifluoromethyl-propyl)-phenyl
9-314	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	2-F	1	3,3,3-trifluoro- n-propyl	2-iodo-6-trifluoromethyl-4- (1,2,2,3,3,3-hexafluoro-1- trifluoromethyl-propyl)-phenyl
9-315	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	2-F	1	phenyl	2,6-dimethyl-4-(1,2,2,3,3,3- hexafluoro-1-trifluoromethyl- propyl)-phenyl
9-316	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	2-F	1	4-cyanophenyl	2,6-dimethyl-4-(1,2,2,3,3,3- hexafluoro-1-trifluoromethyl- propyl)-phenyl
9-317	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	2-F	1	3-cyanophenyl	2,6-dimethyl-4-(1,2,2,3,3,3- hexafluoro-1-trifluoromethyl- propyl)-phenyl
9-318	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	4-F	1	2,2,2- trichloroethyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro- 1-trifluoromethyl-ethyl)-phenyl
9-319	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	4-F	1	2,2,2- trichloroethyl	2-bromo-6-trifluoromethyl-4- (1,2,2,2-tetrafluoro-1- trifluoromethyl-ethyl)-phenyl

TABLE 9-continued

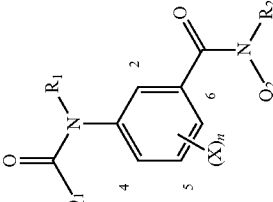
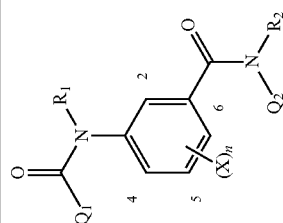
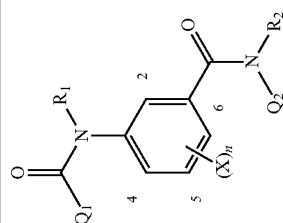
compound number											Q ₂
	R ₁	R ₂	L1	D1	L2	D2	X	n	Q ₃		
9-320	H	—I ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	4-F	1	2,2,2-trichloroethyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-321	H	—I ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	4-F	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-322	H	—I ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	4-F	1	2,2,2-trichloroethyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
9-323	H	—I ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	4-CN	1	2,2,2-trichloroethyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-324	H	—I ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	4-CN	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-325	H	—I ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	4-CN	1	2,2,2-trichloroethyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-326	H	—I ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	4-CN	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
9-327	H	—I ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	4-CN	1	2,2,2-trichloroethyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
9-328	H	—I ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-NO ₂	1	2,2,2-trichloroethyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-329	H	—I ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-NO ₂	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-330	H	—I ₂ —D ₂	—	—	—CH ₂ CH ₂ —	CONH ₂	2-NO ₂	1	2,2,2-trichloroethyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	

TABLE 9-continued



compound number	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₃	Q ₂
9-331	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	2-NO ₂	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-332	H	-L ₂ -D ₂	-	-	-CH ₂ CH ₂ -	CONH ₂	2-NO ₂	1	2,2,2-trichloroethyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-333	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	methyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-334	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	ethyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-335	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	SO ₂ Me	H	0	i-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-336	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	n-butyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-337	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	SO ₂ Me	-CH ₂ CH ₂ -	CONH ₂	H	0	i-butyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-338	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	s-butyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-339	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	t-butyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-340	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	SOMe	H	0	vinyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-341	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	allyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-342	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	SOMe	-CH ₂ CH ₂ -	CONH ₂	H	0	benzyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-343	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	OH	-CH ₂ CH ₂ -	OH	H	0	chloromethyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-344	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-trichloroethyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-345	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	3,3,3-trifluoro-n-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-346	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CO ₂ Me	-CH ₂ CH ₂ -	CO ₂ Me	H	0	1,3-difluoro-2-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 9-continued



compound number	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₃	Q ₂
9-347	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CN	-CH ₂ CH ₂ -	CN	H	0	cyclohexyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-348	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ (CH ₃)-	CONH ₂	-CH ₂ CH(CH ₃)-	CONH ₂	2-F	1	methyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-349	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	ethyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-350	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	i-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-351	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	NH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	n-butyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-352	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	i-butyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-353	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	s-butyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-354	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	t-butyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-355	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ -	CN	-CH ₂ CH ₂ -	CONH ₂	2-F	1	vinyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-356	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	allyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-357	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	benzyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-358	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CO ₂ H	-CH ₂ CH ₂ -	CO ₂ H	2-F	1	chloromethyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-359	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	2,2,2-trichloroethyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-360	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	3,3,3-trifluoro-n-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-361	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	1,3-difluoro-2-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-362	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONMe ₂	-CH ₂ CH ₂ -	CONMe ₂	2-F	1	cyclohexyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-363	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	4-F	1	i-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-364	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	4-F	1	2,2,2-trichloroethyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 9-continued

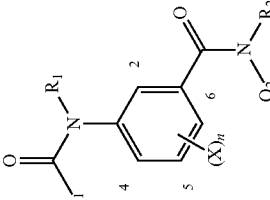
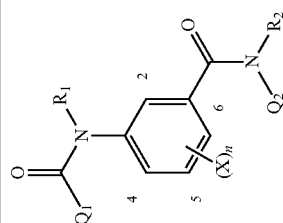
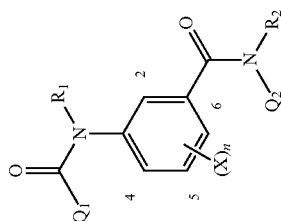
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	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₃		
9-365	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	4-F	1	3,3,3-trifluoro-n-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-366	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	4-CN	1	i-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-367	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	4-CN	1	2,2,2-trichloroethyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-368	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	4-CN	1	3,3,3-trifluoro-n-propyl	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-369	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-trichloroethyl	2,6-dibromo-4-pentafluoroethyl-phenyl	
9-370	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	3,3,3-trifluoro-n-propyl	2,6-diiodo-4-pentafluoroethyl-phenyl	
9-371	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-trichloroethyl	2-bromo-6-trifluoromethyl-4-pentafluoroethyl-phenyl	
9-372	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-trichloroethyl	2-iodo-6-trifluoromethyl-4-pentafluoroethyl-phenyl	
9-373	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-trichloroethyl	2-chloro-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-374	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-trichloroethyl	2-bromo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-375	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-trichloroethyl	2-iodo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-376	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	SO ₂ NH ₂	-CH ₂ CH ₂ -	SO ₂ NH ₂	H	0	2,2,2-trichloroethyl	2-bromo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-377	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	SO ₂ Me	-CH ₂ CH ₂ -	SO ₂ Me	H	0	2,2,2-trichloroethyl	2-iodo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
9-378	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-trichloroethyl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	

TABLE 9-continued



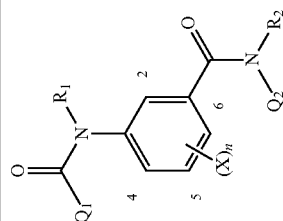
compound number	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₃	Q ₂
9-379	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-trichloroethyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl)-phenyl
9-380	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-trichloroethyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl)-phenyl
9-381	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-trichloroethyl	2,6-difluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl)-phenyl
9-382	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-trichloroethyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl)-phenyl
9-383	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-trichloroethyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl)-phenyl
9-384	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-trichloroethyl	2-bromo-6-trifluoromethoxy-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl)-phenyl
9-385	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-trichloroethyl	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl)-phenyl
9-386	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-trichloroethyl	2-bromo-6-trifluoromethylthio-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl)-phenyl
9-387	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-trichloroethyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl)-phenyl
9-388	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CO ₂ H	H	0	2,2,2-trichloroethyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl)-phenyl
9-389	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-trichloroethyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl)-phenyl
9-390	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-trichloroethyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl)-phenyl

TABLE 9-continued



compound number	R ₁	R ₂	L1	D1	L2	D2	X	n	Q ₃	Q ₂
9-391	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-	2-chloro-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl)-propyl)-phenyl
9-392	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-	2-bromo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl)-propyl)-phenyl
9-393	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-	2-iodo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl)-propyl)-phenyl
9-394	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-	2-bromo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl)-propyl)-phenyl
9-395	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-	2-iodo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl)-propyl)-phenyl
9-396	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-	2,6-dichloro-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl)-propyl)-phenyl
9-397	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl)-propyl)-phenyl
9-398	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CO ₂ H	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl)-propyl)-phenyl
9-399	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ -	CONH ₂	-CH ₂ -	CONH ₂	H	0	2,2,2-	2,6-difluoro-1-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl)-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl)-propyl)-phenyl
9-400	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl)-propyl)-phenyl
9-401	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2-	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl)-propyl)-phenyl

TABLE 9-continued



compound number	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₃	Q ₂
9-402	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2- trichloroethyl	2-bromo-6-trifluoromethoxy-4- (1,2,2,3,3,3-hexafluoro-1- trifluoromethyl-propyl)-phenyl
9-403	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2- trichloroethyl	2-bromo-6-iodo-4-(1,2,2,3,3,3- hexafluoro-1-trifluoromethyl- propyl)-phenyl
9-404	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2- trichloroethyl	2-bromo-6-trifluoromethylthio-4- (1,2,2,3,3,3-hexafluoro-1- trifluoromethyl-propyl)-phenyl
9-405	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2- trichloroethyl	2-bromo-6-trifluoromethylsulfonyl- 4-(1,2,2,3,3,3-hexafluoro-1- trifluoromethyl-propyl)-phenyl
9-406	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH(CH ₃)-	CONH ₂	-CH ₂ CH ₂ (CH ₃)-	CONH ₂	H	0	2,2,2- trichloroethyl	2-bromo-6-trifluoromethylsulfonyl- 4-(1,2,2,3,3,3-hexafluoro-1- trifluoromethyl-propyl)-phenyl
9-407	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2- trichloroethyl	2-bromo-6-pentafluoroethyl-4- (1,2,2,3,3,3-hexafluoro-1- trifluoromethyl-propyl)-phenyl
9-408	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	2,2,2- trichloroethyl	2-iodo-pentafluoroethyl-4- (1,2,2,3,3,3-hexafluoro-1- trifluoromethyl-propyl)-phenyl
9-409	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	i-propyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro- 1-trifluoromethyl-ethyl)-phenyl
9-410	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	3,3,3-trifluoro- n-propyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro- 1-trifluoromethyl-ethyl)-phenyl
9-411	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	i-propyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro- 1-trifluoromethyl-ethyl)-phenyl
9-412	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	3,3,3-trifluoro- n-propyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro- 1-trifluoromethyl-ethyl)-phenyl
9-413	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	i-propyl	2-bromo-6-trifluoromethyl-4- (1,2,2,2-tetrafluoro-1- trifluoromethyl-ethyl)-phenyl
9-414	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	3,3,3-trifluoro- n-propyl	2-bromo-6-trifluoromethyl-4- (1,2,2,2-tetrafluoro-1- trifluoromethyl-ethyl)-phenyl

TABLE 9-continued

compound number	R ₁		R ₂	L1	D1	L2	D2	X	n	Q ₃	Q ₂
	-L ₁ -D ₁		-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	i-propyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-415	-L ₁ -D ₁		-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	i-propyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-416	-L ₁ -D ₁		-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	3,3,3-trifluoro-n-propyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-417	-L ₁ -D ₁		-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	i-propyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-418	-L ₁ -D ₁		-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	3,3,3-trifluoro-n-propyl	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-419	-L ₁ -D ₁		-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	i-propyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-420	-L ₁ -D ₁		-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	3,3,3-trifluoro-n-propyl	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-421	-L ₁ -D ₁		-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	i-propyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-422	-L ₁ -D ₁		-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	3,3,3-trifluoro-n-propyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-423	-L ₁ -D ₁		-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	i-propyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-424	-L ₁ -D ₁		-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	H	0	3,3,3-trifluoro-n-propyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-425	-L ₁ -D ₁		-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	2,2,2-trichloroethyl	2,6-dibromo-4-pentafluoroethyl-phenyl
9-426	-L ₁ -D ₁		-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	3,3,3-trifluoro-n-propyl	2,6-diiodo-4-pentafluoroethyl-phenyl

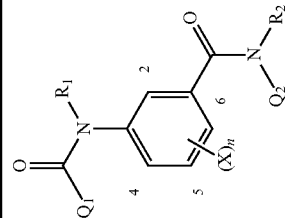


TABLE 9-continued

compound
number

	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₃	Q ₂
9-427	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
9-428	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3,3,3-trifluoro-n-propyl	2-iodo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
9-429	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-chloro-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-430	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	3,3,3-trifluoro-n-propyl	2-bromo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-431	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-iodo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-432	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-bromo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-433	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-iodo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-434	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-435	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-436	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-437	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2,6-difluoro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-438	—L ₁ —D ₁	—L ₂ —D ₂	—CH ₂ CH ₂ —	CONH ₂	—CH ₂ CH ₂ —	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 9-continued

compound number	R ₁		R ₂		L1	D1	L2	D2	X	n	Q ₃	Q ₂	
	L ₁ -D ₁	-L ₂ -D ₂	-L ₂ -D ₂	-L ₂ -D ₂	-CH ₂ CH ₂ -	CN	-CH ₂ CH ₂ -	CN	2-F	1	2,2,2- trichloroethyl	2-bromo-6-ethyl-4-(1,2,2,3,3,3- hexafluoro-1-trifluoromethyl- propyl)-phenyl	2-bromo-6-ethyl-4-(1,2,2,3,3,3- hexafluoro-1-trifluoromethyl- propyl)-phenyl
9-450	-L ₁ -D ₁	-L ₂ -D ₂	-L ₂ -D ₂	-L ₂ -D ₂	-CH ₂ CH ₂ -	CN	-CH ₂ CH ₂ -	CN	2-F	1	2,2,2- trichloroethyl	2-bromo-6-ethyl-4-(1,2,2,3,3,3- hexafluoro-1-trifluoromethyl- propyl)-phenyl	2-bromo-6-ethyl-4-(1,2,2,3,3,3- hexafluoro-1-trifluoromethyl- propyl)-phenyl
9-451	-L ₁ -D ₁	-L ₂ -D ₂	-L ₂ -D ₂	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH2	-CH ₂ CH ₂ -	CONH2	2-F	1	2,2,2- trichloroethyl	2-iodo-6-ethyl-4-(1,2,2,3,3,3- hexafluoro-1-trifluoromethyl- propyl)-phenyl	2-iodo-6-ethyl-4-(1,2,2,3,3,3- hexafluoro-1-trifluoromethyl- propyl)-phenyl
9-452	-L ₁ -D ₁	-L ₂ -D ₂	-L ₂ -D ₂	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH2	-CH ₂ CH ₂ -	CONH2	2-F	1	2,2,2- trichloroethyl	2,6-dichloro-4-(1,2,2,3,3,3- hexafluoro-1-trifluoromethyl- propyl)-phenyl	2,6-dichloro-4-(1,2,2,3,3,3- hexafluoro-1-trifluoromethyl- propyl)-phenyl
9-453	-L ₁ -D ₁	-L ₂ -D ₂	-L ₂ -D ₂	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH2	-CH ₂ CH ₂ -	CONH2	2-F	1	2,2,2- trichloroethyl	2,6-dibromo-4-(1,2,2,3,3,3- hexafluoro-1-trifluoromethyl- propyl)-phenyl	2,6-dibromo-4-(1,2,2,3,3,3- hexafluoro-1-trifluoromethyl- propyl)-phenyl
9-454	-L ₁ -D ₁	-L ₂ -D ₂	-L ₂ -D ₂	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH2	-CH ₂ CH ₂ -	CONH2	2-F	1	2,2,2- trichloroethyl	2,6-diiodo-4-(1,2,2,3,3,3- hexafluoro-1-trifluoromethyl- propyl)-phenyl	2,6-diiodo-4-(1,2,2,3,3,3- hexafluoro-1-trifluoromethyl- propyl)-phenyl
9-455	-L ₁ -D ₁	-L ₂ -D ₂	-L ₂ -D ₂	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH2	-CH ₂ CH ₂ -	CONH2	2-F	1	2,2,2- trichloroethyl	2,6-difluoro-4-(1,2,2,3,3,3- hexafluoro-1-trifluoromethyl- propyl)-phenyl	2,6-difluoro-4-(1,2,2,3,3,3- hexafluoro-1-trifluoromethyl- propyl)-phenyl
9-456	-L ₁ -D ₁	-L ₂ -D ₂	-L ₂ -D ₂	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH2	-CH ₂ CH ₂ -	CONH2	2-F	1	2,2,2- trichloroethyl	2-bromo-6-trifluoromethyl-4- (1,2,2,3,3,3-hexafluoro-1- trifluoromethyl-propyl)-phenyl	2-bromo-6-trifluoromethyl-4- (1,2,2,3,3,3-hexafluoro-1- trifluoromethyl-propyl)-phenyl
9-457	-L ₁ -D ₁	-L ₂ -D ₂	-L ₂ -D ₂	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH2	-CH ₂ CH ₂ -	CONH2	2-F	1	2,2,2- trichloroethyl	2-iodo-6-trifluoromethyl-4- (1,2,2,3,3,3-hexafluoro-1- trifluoromethyl-propyl)-phenyl	2-iodo-6-trifluoromethyl-4- (1,2,2,3,3,3-hexafluoro-1- trifluoromethyl-propyl)-phenyl
9-458	-L ₁ -D ₁	-L ₂ -D ₂	-L ₂ -D ₂	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH2	-CH ₂ CH ₂ -	CONH2	2-F	1	2,2,2- trichloroethyl	2-bromo-6-trifluoromethoxy-4- (1,2,2,3,3,3-hexafluoro-1- trifluoromethyl-propyl)-phenyl	2-bromo-6-trifluoromethoxy-4- (1,2,2,3,3,3-hexafluoro-1- trifluoromethyl-propyl)-phenyl
9-459	-L ₁ -D ₁	-L ₂ -D ₂	-L ₂ -D ₂	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH2	-CH ₂ CH ₂ -	CONH2	2-F	1	2,2,2- trichloroethyl	2-bromo-6-iodo-4-(1,2,2,3,3,3- hexafluoro-1-trifluoromethyl- propyl)-phenyl	2-bromo-6-iodo-4-(1,2,2,3,3,3- hexafluoro-1-trifluoromethyl- propyl)-phenyl
9-460	-L ₁ -D ₁	-L ₂ -D ₂	-L ₂ -D ₂	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH2	-CH ₂ CH ₂ -	CONH2	2-F	1	2,2,2- trichloroethyl	2-bromo-6-trifluoromethylthio- 4-(1,2,2,3,3,3-hexafluoro-1- trifluoromethyl-propyl)-phenyl	2-bromo-6-trifluoromethylthio- 4-(1,2,2,3,3,3-hexafluoro-1- trifluoromethyl-propyl)-phenyl

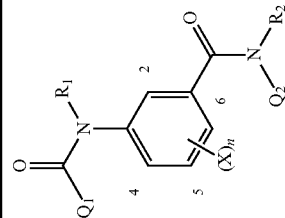
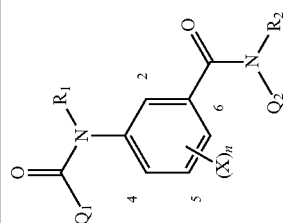


TABLE 9-continued



compound number	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₃	Q ₂
9-461	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-462	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-463	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-bromo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-464	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	2,2,2-trichloroethyl	2-iodo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-465	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	i-propyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-466	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ CH ₂ -	CONH ₂	2-F	1	3,3,3-trifluoro-n-propyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-467	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	i-propyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-468	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	3,3,3-trifluoro-n-propyl	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-469	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	i-propyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-470	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	3,3,3-trifluoro-n-propyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-471	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	i-propyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-472	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	3,3,3-trifluoro-n-propyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-473	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-F	1	i-propyl	2,6-dibromo-4-(1,2,2,2,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

TABLE 9-continued

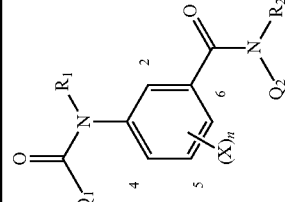
<div></div>										
compound number	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₃	Q ₂
9-486	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	4-F	1	2,2,2-trichloroethyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-487	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	4-F	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-488	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	4-F	1	2,2,2-trichloroethyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-489	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	4-CN	1	2,2,2-trichloroethyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-490	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	4-CN	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-491	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	4-CN	1	2,2,2-trichloroethyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-492	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	4-CN	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-493	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	4-CN	1	2,2,2-trichloroethyl	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
9-494	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-NO ₂	1	2,2,2-trichloroethyl	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-495	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-NO ₂	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
9-496	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-NO ₂	1	2,2,2-trichloroethyl	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 9-continued

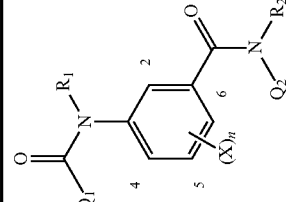
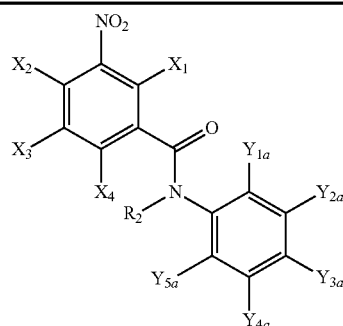
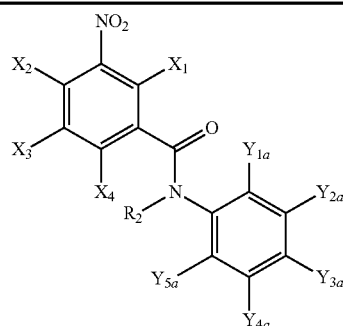
<div></div>										
compound number	R ₁	R ₂	L ₁	D ₁	L ₂	D ₂	X	n	Q ₃	Q ₂
9-497	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-NO ₂	1	2,2,2-trichloroethyl	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-tetrafluoro-1-trifluoromethyl-propyl)-phenyl
9-498	-L ₁ -D ₁	-L ₂ -D ₂	-CH ₂ CH ₂ -	CONH ₂	-CH ₂ CH ₂ -	CONH ₂	2-NO ₂	1	2,2,2-trichloroethyl	2-iodo-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

TABLE 11



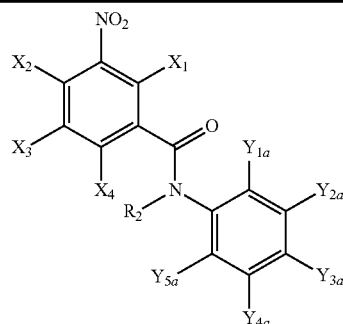
compound number	R ₂	X ₁	X ₂	X ₃	X ₄	Y _{1a}	Y _{2a}	Y _{3a}	Y _{4a}	Y _{5a}
11-1	H	H	H	H	H	F	H	nonafluoro-2-butyl	H	F
11-2	H	H	H	H	H	Cl	H	nonafluoro-2-butyl	H	Cl
11-3	H	H	H	H	H	Br	H	nonafluoro-2-butyl	H	Br
11-4	H	H	H	H	H	I	H	nonafluoro-2-butyl	H	I
11-5	H	H	H	H	H	Br	H	nonafluoro-2-butyl	H	Cl
11-6	H	H	H	H	H	Br	H	nonafluoro-2-butyl	H	I
11-7	H	H	H	H	H	Br	H	nonafluoro-2-butyl	H	OCF ₃
11-8	H	H	H	H	H	Br	H	pentafluoroethyl	H	CF ₃
11-9	H	H	H	H	H	F	H	heptafluoroisopropyl	H	CF ₃
11-10	H	H	H	H	H	Cl	H	heptafluoroisopropyl	H	CF ₃
11-11	H	H	H	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
11-12	H	H	H	H	H	I	H	heptafluoroisopropyl	H	CF ₃
11-13	H	H	H	H	H	F	H	nonafluoro-2-butyl	H	CF ₃
11-14	H	H	H	H	H	Cl	H	nonafluoro-2-butyl	H	CF ₃
11-15	H	H	H	H	H	Br	H	nonafluoro-2-butyl	H	CF ₃
11-16	H	H	H	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
11-17	H	H	H	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
11-18	H	H	H	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
11-19	H	H	H	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
11-20	H	H	H	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
11-21	H	H	H	H	H	Br	H	heptafluoroisopropyl	H	C ₂ F ₅
11-22	H	Cl	H	H	H	F	H	heptafluoroisopropyl	H	F
11-23	H	Cl	H	H	H	Cl	H	heptafluoroisopropyl	H	Cl
11-24	H	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	Br
11-25	H	Cl	H	H	H	I	H	heptafluoroisopropyl	H	I
11-26	H	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	Cl
11-27	H	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	I
11-28	H	Cl	H	H	H	Cl	H	nonafluoro-2-butyl	H	Cl
11-29	H	Cl	H	H	H	Br	H	nonafluoro-2-butyl	H	Br
11-30	H	Cl	H	H	H	I	H	nonafluoro-2-butyl	H	I
11-31	H	Cl	H	H	H	Br	H	nonafluoro-2-butyl	H	Cl
11-32	H	Cl	H	H	H	Br	H	nonafluoro-2-butyl	H	I
11-33	H	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
11-34	H	Cl	H	H	H	I	H	nonafluoro-2-butyl	H	OCF ₃
11-35	H	Cl	H	H	H	Br	H	pentafluoroethyl	H	CF ₃
11-36	H	Cl	H	H	H	F	H	heptafluoroisopropyl	H	CF ₃
11-37	H	Cl	H	H	H	Cl	H	heptafluoroisopropyl	H	CF ₃
11-38	H	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
11-39	H	Cl	H	H	H	I	H	heptafluoroisopropyl	H	CF ₃
11-40	H	Cl	H	H	H	F	H	nonafluoro-2-butyl	H	CF ₃
11-41	H	Cl	H	H	H	Cl	H	nonafluoro-2-butyl	H	CF ₃
11-42	H	Cl	H	H	H	Br	H	nonafluoro-2-butyl	H	CF ₃
11-43	H	Cl	H	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
11-44	H	Cl	H	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
11-45	H	Cl	H	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
11-46	H	Cl	H	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
11-47	H	Cl	H	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
11-48	H	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	C ₂ F ₅
11-49	H	F	H	H	H	F	H	heptafluoroisopropyl	H	F
11-50	H	F	H	H	H	Cl	H	heptafluoroisopropyl	H	Cl
11-51	H	F	H	H	H	Br	H	heptafluoroisopropyl	H	Br
11-52	H	F	H	H	H	I	H	heptafluoroisopropyl	H	I
11-53	H	F	H	H	H	Br	H	heptafluoroisopropyl	H	Cl
11-54	H	F	H	H	H	Br	H	heptafluoroisopropyl	H	I
11-55	H	F	H	H	H	Cl	H	nonafluoro-2-butyl	H	Cl
11-56	H	F	H	H	H	Br	H	nonafluoro-2-butyl	H	Br
11-57	H	F	H	H	H	I	H	nonafluoro-2-butyl	H	I
11-58	H	F	H	H	H	Br	H	nonafluoro-2-butyl	H	Cl
11-59	H	F	H	H	H	Br	H	nonafluoro-2-butyl	H	I
11-60	H	F	H	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
11-61	H	F	H	H	H	I	H	nonafluoro-2-butyl	H	OCF ₃

TABLE 11-continued



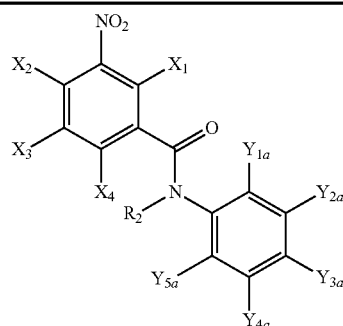
compound number	R ₂	X ₁	X ₂	X ₃	X ₄	Y _{1a}	Y _{2a}	Y _{3a}	Y _{4a}	Y _{5a}
11-62	H	F	H	H	H	Br	H	pentafluoroethyl	H	CF ₃
11-63	H	F	H	H	H	F	H	heptafluoroisopropyl	H	CF ₃
11-64	H	F	H	H	H	Cl	H	heptafluoroisopropyl	H	CF ₃
11-65	H	F	H	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
11-66	H	F	H	H	H	I	H	heptafluoroisopropyl	H	CF ₃
11-67	H	F	H	H	H	F	H	nonafluoro-2-butyl	H	CF ₃
11-68	H	F	H	H	H	Cl	H	nonafluoro-2-butyl	H	CF ₃
11-69	H	F	H	H	H	Br	H	nonafluoro-2-butyl	H	CF ₃
11-70	H	F	H	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
11-71	H	F	H	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
11-72	H	F	H	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
11-73	H	F	H	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
11-74	H	F	H	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
11-75	H	F	H	H	H	Br	H	heptafluoroisopropyl	H	C ₂ F ₅
11-76	H	H	F	H	H	Br	H	heptafluoroisopropyl	H	Br
11-77	H	H	F	H	H	Br	H	heptafluoroisopropyl	H	Cl
11-78	H	H	F	H	H	I	H	nonafluoro-2-butyl	H	I
11-79	H	H	F	H	H	Br	H	nonafluoro-2-butyl	H	I
11-80	H	H	F	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
11-81	H	H	F	H	H	I	H	nonafluoro-2-butyl	H	OCF ₃
11-82	H	H	F	H	H	Br	H	pentafluoroethyl	H	CF ₃
11-83	H	H	F	H	H	Cl	H	heptafluoroisopropyl	H	CF ₃
11-84	H	H	F	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
11-85	H	H	F	H	H	I	H	heptafluoroisopropyl	H	CF ₃
11-86	H	H	F	H	H	Cl	H	nonafluoro-2-butyl	H	CF ₃
11-87	H	H	F	H	H	Br	H	nonafluoro-2-butyl	H	CF ₃
11-88	H	H	F	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
11-89	H	H	F	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
11-90	H	H	F	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
11-91	H	H	F	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
11-92	H	H	F	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
11-93	H	H	F	H	H	Br	H	heptafluoroisopropyl	H	C ₂ F ₅
11-94	H	H	I	H	H	Br	H	heptafluoroisopropyl	H	Br
11-95	H	H	I	H	H	Br	H	heptafluoroisopropyl	H	I
11-96	H	H	I	H	H	I	H	nonafluoro-2-butyl	H	I
11-97	H	H	I	H	H	Br	H	nonafluoro-2-butyl	H	Cl
11-98	H	H	I	H	H	I	H	heptafluoroisopropyl	H	OCF ₃
11-99	H	H	I	H	H	Br	H	nonafluoro-2-butyl	H	OCF ₃
11-100	H	H	I	H	H	Cl	H	heptafluoroisopropyl	H	CF ₃
11-101	H	H	I	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
11-102	H	H	I	H	H	I	H	heptafluoroisopropyl	H	CF ₃
11-103	H	H	I	H	H	Br	H	nonafluoro-2-butyl	H	CF ₃
11-104	H	H	I	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
11-105	H	H	I	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
11-106	H	H	I	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
11-107	H	H	I	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
11-108	H	H	I	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
11-109	H	H	I	H	H	Br	H	heptafluoroisopropyl	H	C ₂ F ₅
11-110	H	H	CN	H	H	Cl	H	heptafluoroisopropyl	H	Cl
11-112	H	H	CN	H	H	I	H	heptafluoroisopropyl	H	I
11-113	H	H	CN	H	H	Br	H	heptafluoroisopropyl	H	Cl
11-114	H	H	CN	H	H	Cl	H	nonafluoro-2-butyl	H	Cl
11-115	H	H	CN	H	H	Br	H	nonafluoro-2-butyl	H	Br
11-116	H	H	CN	H	H	I	H	nonafluoro-2-butyl	H	I
11-117	H	H	CN	H	H	Br	H	nonafluoro-2-butyl	H	I
11-118	H	H	CN	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
11-119	H	H	CN	H	H	I	H	nonafluoro-2-butyl	H	OCF ₃
11-120	H	H	CN	H	H	Br	H	pentafluoroethyl	H	CF ₃
11-121	H	H	CN	H	H	Cl	H	heptafluoroisopropyl	H	CF ₃
11-122	H	H	CN	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
11-123	H	H	CN	H	H	I	H	heptafluoroisopropyl	H	CF ₃

TABLE 11-continued



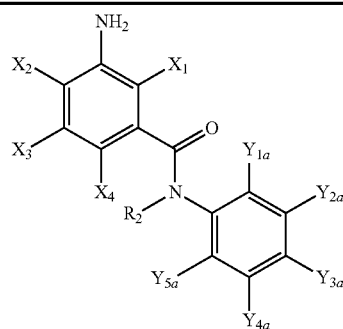
compound number	R ₂	X ₁	X ₂	X ₃	X ₄	Y _{1a}	Y _{2a}	Y _{3a}	Y _{4a}	Y _{5a}
11-124	H	H	CN	H	H	Cl	H	nonafluoro-2-butyl	H	CF ₃
11-125	H	H	CN	H	H	Br	H	nonafluoro-2-butyl	H	CF ₃
11-126	H	H	CN	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
11-127	H	H	CN	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
11-128	H	H	CN	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
11-129	H	H	CN	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
11-130	H	H	CN	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
11-131	H	H	CN	H	H	Br	H	heptafluoroisopropyl	H	C ₂ F ₅
11-132	Me	H	H	H	H	Br	H	heptafluoroisopropyl	H	Br
11-133	Me	H	H	H	H	I	H	nonafluoro-2-butyl	H	I
11-134	Me	H	H	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
11-135	Me	H	H	H	H	Br	H	nonafluoro-2-butyl	H	OCF ₃
11-136	Me	H	H	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
11-137	Me	H	H	H	H	I	H	heptafluoroisopropyl	H	CF ₃
11-138	Me	H	H	H	H	Br	H	nonafluoro-2-butyl	H	CF ₃
11-139	Me	H	H	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
11-140	Me	H	H	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
11-141	Me	H	H	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
11-142	Me	H	H	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
11-143	Me	H	H	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
11-144	Me	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	Br
11-145	Me	Cl	H	H	H	I	H	nonafluoro-2-butyl	H	I
11-146	Me	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
11-147	Me	Cl	H	H	H	Br	H	nonafluoro-2-butyl	H	OCF ₃
11-148	Me	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
11-149	Me	Cl	H	H	H	I	H	heptafluoroisopropyl	H	CF ₃
11-150	Me	Cl	H	H	H	Br	H	nonafluoro-2-butyl	H	CF ₃
11-151	Me	Cl	H	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
11-152	Me	Cl	H	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
11-153	Me	Cl	H	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
11-154	Me	Cl	H	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
11-155	Me	Cl	H	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
11-156	Me	F	H	H	H	Br	H	heptafluoroisopropyl	H	Br
11-157	Me	F	H	H	H	I	H	nonafluoro-2-butyl	H	I
11-158	Me	F	H	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
11-159	Me	F	H	H	H	Br	H	nonafluoro-2-butyl	H	OCF ₃
11-160	Me	F	H	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
11-161	Me	F	H	H	H	I	H	heptafluoroisopropyl	H	CF ₃
11-162	Me	F	H	H	H	Cl	H	nonafluoro-2-butyl	H	CF ₃
11-163	Me	F	H	H	H	Br	H	nonafluoro-2-butyl	H	CF ₃
11-164	Me	F	H	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
11-165	Et	F	H	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
11-166	Me	F	H	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
11-167	Me	F	H	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
11-168	Me	F	H	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
11-169	Me	H	F	H	H	Br	H	heptafluoroisopropyl	H	Br
11-170	Me	H	F	H	H	I	H	nonafluoro-2-butyl	H	I
11-171	Me	H	F	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
11-172	Me	H	F	H	H	Br	H	nonafluoro-2-butyl	H	OCF ₃
11-173	Me	H	F	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
11-174	Me	H	F	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
11-175	Me	H	F	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
11-176	nPr	H	F	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
11-177	Me	H	F	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
11-178	Me	H	F	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
11-179	Me	H	I	H	H	Br	H	heptafluoroisopropyl	H	Br
11-180	Me	H	I	H	H	I	H	nonafluoro-2-butyl	H	I
11-181	Me	H	I	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
11-182	Me	H	I	H	H	Br	H	nonafluoro-2-butyl	H	OCF ₃
11-183	Me	H	I	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
11-184	Me	H	I	H	H	I	H	nonafluoro-2-butyl	H	CF ₃

TABLE 11-continued



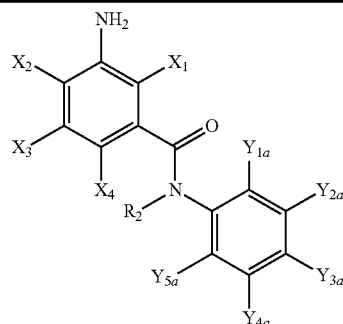
compound number	R ₂	X ₁	X ₂	X ₃	X ₄	Y _{1a}	Y _{2a}	Y _{3a}	Y _{4a}	Y _{5a}
11-185	Me	H	I	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
11-186	iPr	H	I	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
11-187	Me	H	I	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
11-188	Me	H	I	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
11-189	Me	H	CN	H	H	Br	H	heptafluoroisopropyl	H	Br
11-190	Me	H	CN	H	H	I	H	nonafluoro-2-butyl	H	I
11-191	Me	H	CN	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
11-192	Me	H	CN	H	H	Br	H	nonafluoro-2-butyl	H	OCF ₃
11-193	Me	H	CN	H	H	I	H	heptafluoroisopropyl	H	CF ₃
11-194	Me	H	CN	H	H	Br	H	nonafluoro-2-butyl	H	CF ₃
11-195	Me	H	CN	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
11-196	Me	H	CN	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
11-197	Me	H	CN	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
11-198	Me	H	CN	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
11-199	H	F	H	H	H	Br	H	heptafluoroisopropyl	F	CF ₃
11-200	H	F	H	H	H	Br	Me	nonafluoro-2-butyl	H	CF ₃
11-201	H	F	H	H	H	Br	F	heptafluoroisopropyl	Cl	CF ₃
11-202	H	F	H	H	H	Br	Me	nonafluoro-2-butyl	F	CF ₃
11-203	H	F	H	H	H	Br	Et	heptafluoroisopropyl	Me	CF ₃
11-204	Me	F	H	H	H	I	H	heptafluoroisopropyl	F	CF ₃
11-205	Me	F	H	H	H	I	Me	nonafluoro-2-butyl	H	CF ₃
11-206	Me	F	H	H	H	I	F	heptafluoroisopropyl	Cl	CF ₃
11-207	Me	F	H	H	H	I	Me	nonafluoro-2-butyl	F	CF ₃
11-208	Me	F	H	H	H	I	Et	heptafluoroisopropyl	Me	CF ₃

TABLE 12



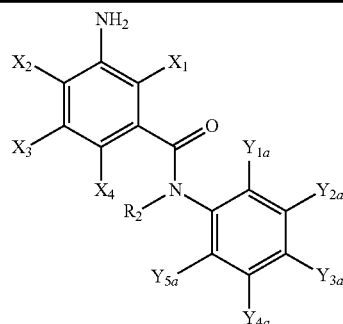
compound number	R ₂	X ₁	X ₂	X ₃	X ₄	Y _{1a}	Y _{2a}	Y _{3a}	Y _{4a}	Y _{5a}
12-1	H	H	H	H	H	Cl	H	nonafluoro-2-butyl	H	Cl
12-2	H	H	H	H	H	Br	H	nonafluoro-2-butyl	H	Br
12-3	H	H	H	H	H	I	H	nonafluoro-2-butyl	H	I
12-4	H	H	H	H	H	Br	H	nonafluoro-2-butyl	H	OCF ₃
12-5	H	H	H	H	H	Br	H	pentafluoroethyl	H	CF ₃
12-6	H	H	H	H	H	Cl	H	heptafluoroisopropyl	H	CF ₃
12-7	H	H	H	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
12-8	H	H	H	H	H	I	H	heptafluoroisopropyl	H	CF ₃
12-9	H	H	H	H	H	Cl	H	nonafluoro-2-butyl	H	CF ₃
12-10	H	H	H	H	H	Br	H	nonafluoro-2-butyl	H	CF ₃
12-11	H	H	H	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
12-12	H	H	H	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃

TABLE 12-continued



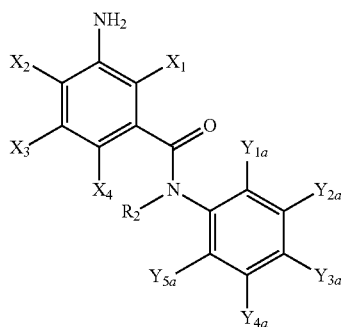
compound number	R ₂	X ₁	X ₂	X ₃	X ₄	Y _{1a}	Y _{2a}	Y _{3a}	Y _{4a}	Y _{5a}
12-13	H	H	H	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
12-14	H	H	H	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
12-15	H	H	H	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
12-16	H	H	H	H	H	Br	H	heptafluoroisopropyl	H	C ₂ F ₅
12-17	H	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	Br
12-18	H	Cl	H	H	H	I	H	nonafluoro-2-butyl	H	I
12-19	H	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
12-20	H	Cl	H	H	H	I	H	nonafluoro-2-butyl	H	OCF ₃
12-21	H	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
12-22	H	Cl	H	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
12-23	H	Cl	H	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
12-24	H	Cl	H	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
12-25	H	F	H	H	H	Cl	H	heptafluoroisopropyl	H	Cl
12-26	H	F	H	H	H	Br	H	heptafluoroisopropyl	H	Br
12-27	H	F	H	H	H	I	H	heptafluoroisopropyl	H	I
12-28	H	F	H	H	H	Br	H	heptafluoroisopropyl	H	Cl
12-29	H	F	H	H	H	Br	H	heptafluoroisopropyl	H	I
12-30	H	F	H	H	H	Br	H	nonafluoro-2-butyl	H	Br
12-31	H	F	H	H	H	I	H	nonafluoro-2-butyl	H	I
12-32	H	F	H	H	H	Br	H	nonafluoro-2-butyl	H	I
12-33	H	F	H	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
12-34	H	F	H	H	H	I	H	nonafluoro-2-butyl	H	OCF ₃
12-35	H	F	H	H	H	Br	H	pentafluoroethyl	H	CF ₃
12-36	H	F	H	H	H	Cl	H	heptafluoroisopropyl	H	CF ₃
12-37	H	F	H	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
12-38	H	F	H	H	H	I	H	heptafluoroisopropyl	H	CF ₃
12-39	H	F	H	H	H	Cl	H	nonafluoro-2-butyl	H	CF ₃
12-40	H	F	H	H	H	Br	H	nonafluoro-2-butyl	H	CF ₃
12-41	H	F	H	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
12-42	H	F	H	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
12-43	H	F	H	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
12-44	H	F	H	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
12-45	H	F	H	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
12-46	H	F	H	H	H	Br	H	heptafluoroisopropyl	H	C ₂ F ₅
12-47	H	H	F	H	H	Br	H	heptafluoroisopropyl	H	Br
12-48	H	H	F	H	H	Br	H	heptafluoroisopropyl	H	Cl
12-49	H	H	F	H	H	I	H	nonafluoro-2-butyl	H	I
12-50	H	H	F	H	H	Br	H	nonafluoro-2-butyl	H	I
12-51	H	H	F	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
12-52	H	H	F	H	H	I	H	nonafluoro-2-butyl	H	OCF ₃
12-53	H	H	F	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
12-54	H	H	F	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
12-55	H	H	F	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
12-56	H	H	F	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
12-57	H	H	F	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
12-58	H	H	F	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
12-59	H	H	I	H	H	I	H	heptafluoroisopropyl	H	I
12-60	H	H	I	H	H	Br	H	nonafluoro-2-butyl	H	Br
12-61	H	H	I	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
12-62	H	H	I	H	H	I	H	nonafluoro-2-butyl	H	OCF ₃
12-63	H	H	I	H	H	Cl	H	heptafluoroisopropyl	H	CF ₃
12-64	H	H	I	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
12-65	H	H	I	H	H	I	H	heptafluoroisopropyl	H	CF ₃
12-66	H	H	I	H	H	Br	H	nonafluoro-2-butyl	H	CF ₃
12-67	H	H	I	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
12-68	H	H	I	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
12-69	H	H	I	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
12-70	H	H	I	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
12-71	H	H	I	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
12-73	H	H	CN	H	H	Br	H	heptafluoroisopropyl	H	Cl
12-74	H	H	CN	H	H	I	H	nonafluoro-2-butyl	H	I

TABLE 12-continued



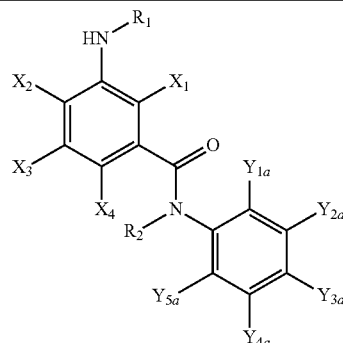
compound number	R ₂	X ₁	X ₂	X ₃	X ₄	Y _{1a}	Y _{2a}	Y _{3a}	Y _{4a}	Y _{5a}
12-75	H	H	CN	H	H	Br	H	nonafluoro-2-butyl	H	I
12-76	H	H	CN	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
12-77	H	H	CN	H	H	I	H	nonafluoro-2-butyl	H	OCF ₃
12-78	H	H	CN	H	H	Cl	H	heptafluoroisopropyl	H	CF ₃
12-79	H	H	CN	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
12-80	H	H	CN	H	H	I	H	heptafluoroisopropyl	H	CF ₃
12-81	H	H	CN	H	H	Cl	H	nonafluoro-2-butyl	H	CF ₃
12-82	H	H	CN	H	H	Br	H	nonafluoro-2-butyl	H	CF ₃
12-83	H	H	CN	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
12-84	H	H	CN	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
12-85	H	H	CN	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
12-86	H	H	CN	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
12-87	H	H	CN	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
12-88	H	H	CN	H	H	Br	H	heptafluoroisopropyl	H	C ₂ F ₅
12-89	H	F	CN	H	H	Br	H	heptafluoroisopropyl	H	Br
12-90	H	F	CN	H	H	I	H	nonafluoro-2-butyl	H	I
12-91	H	F	CN	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
12-92	H	F	CN	H	H	I	H	nonafluoro-2-butyl	H	OCF ₃
12-93	H	F	CN	H	H	Cl	H	heptafluoroisopropyl	H	CF ₃
12-94	H	F	CN	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
12-95	H	F	CN	H	H	I	H	heptafluoroisopropyl	H	CF ₃
12-96	H	F	CN	H	H	Cl	H	nonafluoro-2-butyl	H	CF ₃
12-97	H	F	CN	H	H	Br	H	nonafluoro-2-butyl	H	CF ₃
12-98	H	F	CN	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
12-99	H	F	CN	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
12-100	H	F	CN	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
12-101	H	F	CN	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
12-102	H	F	CN	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
12-103	Me	H	H	H	H	Br	H	heptafluoroisopropyl	H	Br
12-104	Me	H	H	H	H	I	H	nonafluoro-2-butyl	H	I
12-105	Me	H	H	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
12-106	Me	H	H	H	H	Br	H	nonafluoro-2-butyl	H	OCF ₃
12-107	Me	H	H	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
12-108	Me	H	H	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
12-109	Me	H	H	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
12-110	Me	H	H	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
12-111	Me	H	H	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
12-112	Me	H	H	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
12-113	Me	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	Br
12-114	Me	Cl	H	H	H	I	H	nonafluoro-2-butyl	H	I
12-115	Me	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
12-116	Me	Cl	H	H	H	Br	H	nonafluoro-2-butyl	H	OCF ₃
12-117	Me	Cl	H	H	H	I	H	heptafluoroisopropyl	H	CF ₃
12-118	Me	Cl	H	H	H	Br	H	nonafluoro-2-butyl	H	CF ₃
12-119	Me	Cl	H	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
12-120	Me	Cl	H	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
12-121	Me	Cl	H	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
12-122	Me	Cl	H	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
12-123	Me	F	H	H	H	Br	H	heptafluoroisopropyl	H	Br
12-124	Me	F	H	H	H	I	H	nonafluoro-2-butyl	H	I
12-125	Me	F	H	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
12-126	Me	F	H	H	H	Br	H	nonafluoro-2-butyl	H	OCF ₃
12-127	Me	F	H	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
12-128	Me	F	H	H	H	I	H	heptafluoroisopropyl	H	CF ₃
12-129	Me	F	H	H	H	Br	H	nonafluoro-2-butyl	H	CF ₃
12-130	Me	F	H	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
12-131	Me	F	H	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
12-132	Me	F	H	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
12-133	Me	F	H	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
12-134	Me	F	H	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
12-135	Me	H	F	H	H	Br	H	heptafluoroisopropyl	H	Br

TABLE 12-continued



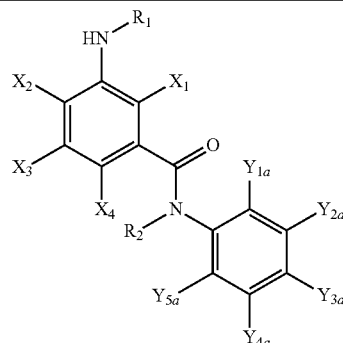
compound number	R ₂	X ₁	X ₂	X ₃	X ₄	Y _{1a}	Y _{2a}	Y _{3a}	Y _{4a}	Y _{5a}
12-136	Me	H	F	H	H	I	H	nonafluoro-2-butyl	H	I
12-137	Me	H	F	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
12-138	Me	H	F	H	H	Br	H	nonafluoro-2-butyl	H	OCF ₃
12-139	Me	H	F	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
12-140	Me	H	F	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
12-141	Et	H	F	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
12-142	Me	H	F	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
12-143	Me	H	F	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
12-144	Me	H	F	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
12-145	Me	H	I	H	H	Br	H	heptafluoroisopropyl	H	Br
12-146	Me	H	I	H	H	I	H	nonafluoro-2-butyl	H	I
12-147	Me	H	I	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
12-148	Me	H	I	H	H	Br	H	nonafluoro-2-butyl	H	OCF ₃
12-149	Me	H	I	H	H	I	H	heptafluoroisopropyl	H	CF ₃
12-150	Me	H	I	H	H	Br	H	nonafluoro-2-butyl	H	CF ₃
12-151	Me	H	I	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
12-152	iPr	H	I	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
12-153	Me	H	I	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
12-154	Me	H	I	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
12-155	Me	H	CN	H	H	Br	H	heptafluoroisopropyl	H	Br
12-156	Me	H	CN	H	H	I	H	nonafluoro-2-butyl	H	I
12-157	Me	H	CN	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
12-158	Me	H	CN	H	H	Br	H	nonafluoro-2-butyl	H	OCF ₃
12-159	Me	H	CN	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
12-160	Me	H	CN	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
12-161	Me	H	CN	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
12-162	Me	H	CN	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
12-163	Me	H	CN	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
12-164	Me	H	CN	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
12-165	Me	F	CN	H	H	Br	H	heptafluoroisopropyl	H	Br
12-166	Me	F	CN	H	H	I	H	nonafluoro-2-butyl	H	I
12-167	Me	F	CN	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
12-168	Me	F	CN	H	H	Br	H	nonafluoro-2-butyl	H	OCF ₃
12-169	Me	F	CN	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
12-170	Me	F	CN	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
12-171	nPr	F	CN	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
12-172	Me	F	CN	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
12-173	Me	F	CN	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
12-174	Me	F	CN	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
12-175	H	F	H	H	H	Br	H	heptafluoroisopropyl	F	CF ₃
12-176	H	F	H	H	H	Br	Me	nonafluoro-2-butyl	H	CF ₃
12-177	H	F	H	H	H	Br	F	heptafluoroisopropyl	Cl	CF ₃
12-178	H	F	H	H	H	Br	Me	nonafluoro-2-butyl	F	CF ₃
12-179	H	F	H	H	H	Br	Et	heptafluoroisopropyl	Me	CF ₃
12-180	Me	F	H	H	H	I	H	heptafluoroisopropyl	F	CF ₃
12-181	Me	F	H	H	H	I	Me	nonafluoro-2-butyl	H	CF ₃
12-182	Me	F	H	H	H	I	F	heptafluoroisopropyl	Cl	CF ₃
12-183	Me	F	H	H	H	I	Me	nonafluoro-2-butyl	F	CF ₃
12-184	Me	F	H	H	H	I	Et	heptafluoroisopropyl	Me	CF ₃

TABLE 13



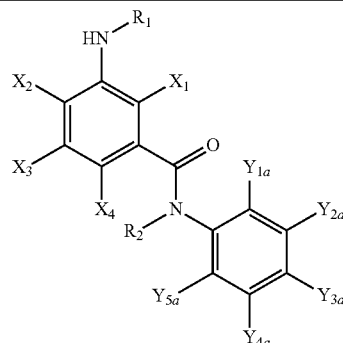
compound number	R ₁	R ₂	X ₁	X ₂	X ₃	X ₄	Y _{1a}	Y _{2a}	Y _{3a}	Y _{4a}	Y _{5a}
13-1	Me	H	H	H	H	H	Br	H	nonafluoro-2-butyl	H	Br
13-2	Me	H	H	H	H	H	I	H	nonafluoro-2-butyl	H	I
13-3	Me	H	H	H	H	H	Br	H	nonafluoro-2-butyl	H	OCF ₃
13-4	Me	H	H	H	H	H	Br	H	pentafluoroethyl	H	CF ₃
13-5	Me	H	H	H	H	H	Cl	H	heptafluoroisopropyl	H	CF ₃
13-6	Me	H	H	H	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
13-7	Me	H	H	H	H	H	I	H	heptafluoroisopropyl	H	CF ₃
13-8	Me	H	H	H	H	H	Br	H	nonafluoro-2-butyl	H	CF ₃
13-9	Me	H	H	H	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
13-10	Me	H	H	H	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
13-11	Me	H	H	H	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
13-12	Me	H	H	H	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
13-13	Me	H	H	H	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
13-14	Me	H	H	H	H	H	Br	H	heptafluoroisopropyl	H	C ₂ F ₅
13-15	Me	H	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	Br
13-16	Me	H	Cl	H	H	H	I	H	nonafluoro-2-butyl	H	I
13-17	Me	H	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
13-18	Me	H	Cl	H	H	H	I	H	nonafluoro-2-butyl	H	OCF ₃
13-19	Me	H	Cl	H	H	H	Br	H	pentafluoroethyl	H	CF ₃
13-20	Me	H	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
13-21	Me	H	Cl	H	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
13-22	Me	H	Cl	H	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
13-23	Me	H	Cl	H	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
13-24	Me	H	Cl	H	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
13-25	Me	H	Cl	H	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
13-26	Me	H	F	H	H	H	Cl	H	heptafluoroisopropyl	H	Cl
13-27	Me	H	F	H	H	H	Br	H	heptafluoroisopropyl	H	Br
13-28	Me	H	F	H	H	H	I	H	heptafluoroisopropyl	H	I
13-29	Me	H	F	H	H	H	Br	H	heptafluoroisopropyl	H	Cl
13-30	Me	H	F	H	H	H	Br	H	heptafluoroisopropyl	H	I
13-31	Me	H	F	H	H	H	Cl	H	nonafluoro-2-butyl	H	Cl
13-32	Me	H	F	H	H	H	Br	H	nonafluoro-2-butyl	H	Br
13-33	Me	H	F	H	H	H	I	H	nonafluoro-2-butyl	H	I
13-34	Me	H	F	H	H	H	Br	H	nonafluoro-2-butyl	H	Cl
13-35	Me	H	F	H	H	H	Br	H	nonafluoro-2-butyl	H	I
13-36	Me	H	F	H	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
13-37	Me	H	F	H	H	H	I	H	nonafluoro-2-butyl	H	OCF ₃
13-38	Me	H	F	H	H	H	Br	H	pentafluoroethyl	H	CF ₃
13-39	Me	H	F	H	H	H	Cl	H	heptafluoroisopropyl	H	CF ₃
13-40	Me	H	F	H	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
13-41	Me	H	F	H	H	H	I	H	heptafluoroisopropyl	H	CF ₃
13-42	Me	H	F	H	H	H	Cl	H	nonafluoro-2-butyl	H	CF ₃
13-43	Me	H	F	H	H	H	Br	H	nonafluoro-2-butyl	H	CF ₃
13-44	Me	H	F	H	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
13-45	Me	H	F	H	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
13-46	Me	H	F	H	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
13-47	Me	H	F	H	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
13-48	Me	H	F	H	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
13-49	Me	H	F	H	H	H	Br	H	heptafluoroisopropyl	H	C ₂ F ₅
13-50	Me	H	H	F	H	H	Br	H	heptafluoroisopropyl	H	Br
13-51	Me	H	H	F	H	H	Br	H	heptafluoroisopropyl	H	Cl
13-52	Me	H	H	F	H	H	I	H	nonafluoro-2-butyl	H	I
13-53	Me	H	H	F	H	H	Br	H	nonafluoro-2-butyl	H	I
13-54	Me	H	H	F	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
13-55	Me	H	H	F	H	H	I	H	nonafluoro-2-butyl	H	OCF ₃
13-56	Me	H	H	F	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
13-57	Me	H	H	F	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
13-58	Me	H	H	F	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
13-59	Me	H	H	F	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
13-60	Me	H	H	F	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃

TABLE 13-continued



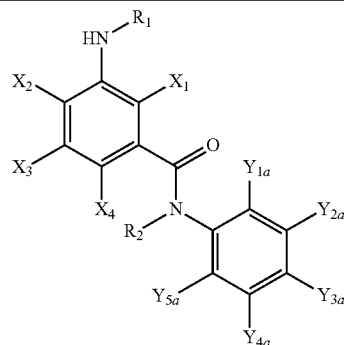
compound number	R ₁	R ₂	X ₁	X ₂	X ₃	X ₄	Y _{1a}	Y _{2a}	Y _{3a}	Y _{4a}	Y _{5a}
13-61	Me	H	H	F	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
13-62	Me	H	H	I	H	H	I	H	heptafluoroisopropyl	H	I
13-63	Me	H	H	I	H	H	Br	H	heptafluoroisopropyl	H	Cl
13-64	Me	H	H	I	H	H	I	H	nonafluoro-2-butyl	H	I
13-65	Me	H	H	I	H	H	Br	H	nonafluoro-2-butyl	H	Cl
13-66	Me	H	H	I	H	H	I	H	heptafluoroisopropyl	H	OCF ₃
13-67	Me	H	H	I	H	H	Br	H	nonafluoro-2-butyl	H	OCF ₃
13-68	Me	H	H	I	H	H	Cl	H	heptafluoroisopropyl	H	CF ₃
13-69	Me	H	H	I	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
13-70	Me	H	H	I	H	H	Br	H	nonafluoro-2-butyl	H	CF ₃
13-71	Me	H	H	I	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
13-72	Me	H	H	I	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
13-73	Me	H	H	I	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
13-74	Me	H	H	I	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
13-75	Me	H	H	I	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
13-76	Me	H	H	CN	H	H	Cl	H	heptafluoroisopropyl	H	Cl
13-77	Me	H	H	CN	H	H	Br	H	heptafluoroisopropyl	H	Br
13-78	Me	H	H	CN	H	H	I	H	heptafluoroisopropyl	H	I
13-79	Me	H	H	CN	H	H	Br	H	heptafluoroisopropyl	H	Cl
13-80	Me	H	H	CN	H	H	Br	H	nonafluoro-2-butyl	H	Br
13-81	Me	H	H	CN	H	H	I	H	nonafluoro-2-butyl	H	I
13-82	Me	H	H	CN	H	H	Br	H	nonafluoro-2-butyl	H	I
13-83	Me	H	H	CN	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
13-84	Me	H	H	CN	H	H	I	H	nonafluoro-2-butyl	H	OCF ₃
13-85	Me	H	H	CN	H	H	Cl	H	heptafluoroisopropyl	H	CF ₃
13-86	Me	H	H	CN	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
13-87	Me	H	H	CN	H	H	I	H	heptafluoroisopropyl	H	CF ₃
13-88	Me	H	H	CN	H	H	Br	H	nonafluoro-2-butyl	H	CF ₃
13-89	Me	H	H	CN	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
13-90	Me	H	H	CN	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
13-91	Me	H	H	CN	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
13-92	Me	H	H	CN	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
13-93	Me	H	H	CN	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
13-94	Me	H	F	CN	H	H	Br	H	heptafluoroisopropyl	H	Br
13-95	Me	H	F	CN	H	H	Br	H	heptafluoroisopropyl	H	Cl
13-96	Me	H	F	CN	H	H	I	H	nonafluoro-2-butyl	H	I
13-97	Me	H	F	CN	H	H	Br	H	nonafluoro-2-butyl	H	I
13-98	Me	H	F	CN	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
13-99	Me	H	F	CN	H	H	I	H	nonafluoro-2-butyl	H	OCF ₃
13-100	Me	H	F	CN	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
13-101	Me	H	F	CN	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
13-102	Me	H	F	CN	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
13-103	Me	H	F	CN	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
13-104	Me	H	F	CN	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
13-105	Me	H	F	CN	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
13-106	Me	Me	H	H	H	H	Br	H	heptafluoroisopropyl	H	Br
13-107	Me	Me	H	H	H	H	I	H	nonafluoro-2-butyl	H	I
13-108	Me	Me	H	H	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
13-109	Me	Me	H	H	H	H	Br	H	nonafluoro-2-butyl	H	OCF ₃
13-110	Me	Me	H	H	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
13-111	Me	Me	H	H	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
13-112	Me	Me	H	H	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
13-113	Me	Me	H	H	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
13-114	Me	Me	H	H	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
13-115	Me	Me	H	H	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
13-116	Me	Me	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	Br
13-117	Me	Me	Cl	H	H	H	I	H	nonafluoro-2-butyl	H	I
13-118	Me	Me	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
13-119	Me	Me	Cl	H	H	H	Br	H	nonafluoro-2-butyl	H	OCF ₃
13-120	Me	Me	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	CF ₃

TABLE 13-continued



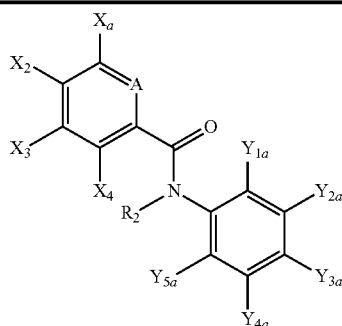
compound number	R ₁	R ₂	X ₁	X ₂	X ₃	X ₄	Y _{1a}	Y _{2a}	Y _{3a}	Y _{4a}	Y _{5a}
13-121	Me	Me	Cl	H	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
13-122	Me	Me	Cl	H	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
13-123	Me	Me	Cl	H	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
13-124	Me	Me	Cl	H	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
13-125	Me	Me	Cl	H	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
13-126	Me	Me	F	H	H	H	Br	H	heptafluoroisopropyl	H	Br
13-127	Me	Me	F	H	H	H	I	H	nonafluoro-2-butyl	H	I
13-128	Me	Me	F	H	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
13-129	Me	Me	F	H	H	H	Br	H	nonafluoro-2-butyl	H	OCF ₃
13-130	Me	Me	F	H	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
13-131	Me	Me	F	H	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
13-132	Me	Me	F	H	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
13-133	Me	Me	F	H	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
13-134	Me	Me	F	H	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
13-135	Me	Me	F	H	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
13-136	Me	Me	H	F	H	H	Br	H	heptafluoroisopropyl	H	Br
13-137	Me	Me	H	F	H	H	I	H	nonafluoro-2-butyl	H	I
13-138	Me	Me	H	F	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
13-139	Me	Me	H	F	H	H	Br	H	nonafluoro-2-butyl	H	OCF ₃
13-140	Me	Me	H	F	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
13-141	Me	Me	H	F	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
13-142	Me	Me	H	F	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
13-143	Me	Me	H	F	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
13-144	Me	Me	H	F	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
13-145	Me	Me	H	F	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
13-146	Me	Me	H	I	H	H	Br	H	heptafluoroisopropyl	H	Br
13-147	Me	Me	H	I	H	H	I	H	nonafluoro-2-butyl	H	I
13-148	Me	Me	H	I	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
13-149	Me	Me	H	I	H	H	Br	H	nonafluoro-2-butyl	H	OCF ₃
13-150	Me	Me	H	I	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
13-151	Me	Me	H	I	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
13-152	Me	Me	H	I	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
13-153	Me	Me	H	I	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
13-154	Me	Me	H	I	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
13-155	Me	Me	H	I	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
13-156	Me	Me	H	CN	H	H	Br	H	heptafluoroisopropyl	H	Br
13-157	Me	Me	H	CN	H	H	I	H	nonafluoro-2-butyl	H	I
13-158	Me	Me	H	CN	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
13-159	Me	Me	H	CN	H	H	Br	H	nonafluoro-2-butyl	H	OCF ₃
13-160	Me	Me	H	CN	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
13-161	Me	Me	H	CN	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
13-162	Me	Me	H	CN	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
13-163	Me	Me	H	CN	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
13-164	Me	Me	H	CN	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
13-165	Me	Me	H	CN	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
13-166	Me	Me	F	CN	H	H	Br	H	heptafluoroisopropyl	H	Br
13-167	Me	Me	F	CN	H	H	I	H	nonafluoro-2-butyl	H	I
13-168	Me	Me	F	CN	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
13-169	Me	Me	F	CN	H	H	Br	H	nonafluoro-2-butyl	H	OCF ₃
13-170	Me	Me	F	CN	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
13-171	Me	Me	F	CN	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
13-172	Me	Me	F	CN	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
13-173	Me	Me	F	CN	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
13-174	Me	Me	F	CN	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
13-175	Me	Me	F	CN	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
13-176	Me	H	F	H	H	H	Br	H	heptafluoroisopropyl	F	CF ₃
13-177	Me	H	F	H	H	H	Br	Me	nonafluoro-2-butyl	H	CF ₃
13-178	Me	H	F	H	H	H	Br	F	heptafluoroisopropyl	Cl	CF ₃
13-179	Me	H	F	H	H	H	Br	Me	nonafluoro-2-butyl	F	CF ₃
13-180	Me	H	F	H	H	H	Br	Et	heptafluoroisopropyl	Me	CF ₃

TABLE 13-continued



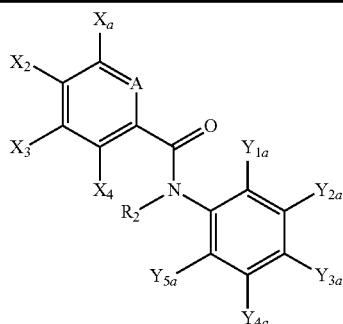
compound number	R ₁	R ₂	X ₁	X ₂	X ₃	X ₄	Y _{1a}	Y _{2a}	Y _{3a}	Y _{4a}	Y _{5a}
13-181	Me	Me	F	H	H	H	I	H	heptafluoroisopropyl	F	CF ₃
13-182	Me	Me	F	H	H	H	I	Me	nonafluoro-2-butyl	H	CF ₃
13-183	Me	Me	F	H	H	H	I	F	heptafluoroisopropyl	Cl	CF ₃
13-184	Me	Me	F	H	H	H	I	Me	nonafluoro-2-butyl	F	CF ₃
13-185	Me	Me	F	H	H	H	I	Et	heptafluoroisopropyl	Me	CF ₃

TABLE 14



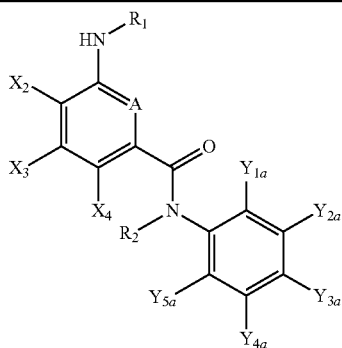
compound number	R ₂	A	Xa	X ₂	X ₃	X ₄	Y _{1a}	Y _{2a}	Y _{3a}	Y _{4a}	Y _{5a}
14-1	H	N	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	Br
14-2	H	N	Cl	H	H	H	I	H	nonafluoro-2-butyl	H	I
14-3	H	N	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
14-4	H	N	Cl	H	H	H	I	H	nonafluoro-2-butyl	H	OCF ₃
14-5	H	N	Cl	H	H	H	Br	H	pentafluoroethyl	H	CF ₃
14-6	H	N	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
14-7	H	N	Cl	H	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
14-8	H	N	Cl	H	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
14-9	H	N	Cl	H	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
14-10	H	N	Cl	H	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
14-11	H	N	Cl	H	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
14-12	H	N	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	C ₂ F ₅
14-13	H	N	Cl	H	H	H	Br	H	nonafluoro-2-butyl	H	C ₂ F ₅
14-14	Me	N	Cl	H	H	H	Cl	H	heptafluoroisopropyl	H	Cl
14-15	Me	N	Cl	H	H	H	Br	H	nonafluoro-2-butyl	H	Cl
14-16	Me	N	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
14-17	Et	N	Cl	H	H	H	Cl	H	nonafluoro-2-butyl	H	OCF ₃
14-18	Me	N	Cl	H	H	H	Br	H	pentafluoroethyl	H	CF ₃
14-19	Me	N	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
14-20	Me	N	Cl	H	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
14-21	Me	N	Cl	H	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
14-22	Me	N	Cl	H	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
14-23	Me	N	Cl	H	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
14-24	Me	N	I	H	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
14-25	Et	N	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	C ₂ F ₅
14-26	Me	N	Cl	H	H	H	Br	H	nonafluoro-2-butyl	H	C ₂ F ₅
14-27	H	N	Cl	H	H	H	Br	H	heptafluoroisopropyl	F	CF ₃
14-28	H	N	Cl	H	H	H	Br	Me	nonafluoro-2-butyl	H	CF ₃
14-29	H	N	Cl	H	H	H	Br	F	heptafluoroisopropyl	Cl	CF ₃
14-30	H	N	Cl	H	H	H	Br	Me	nonafluoro-2-butyl	F	CF ₃

TABLE 14-continued



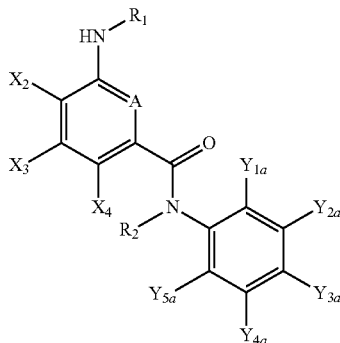
compound number	R ₂	A	X _a	X ₂	X ₃	X ₄	Y _{1a}	Y _{2a}	Y _{3a}	Y _{4a}	Y _{5a}
14-31	H	N	Cl	H	H	H	Br	Et	heptafluoroisopropyl	Me	CF ₃
14-32	Me	N	Cl	H	H	H	I	H	heptafluoroisopropyl	F	CF ₃
14-33	Me	N	Cl	H	H	H	I	Me	nonafluoro-2-butyl	H	CF ₃
14-34	Me	N	Cl	H	H	H	I	F	heptafluoroisopropyl	Cl	CF ₃
14-35	Me	N	Cl	H	H	H	I	Me	nonafluoro-2-butyl	F	CF ₃
14-36	Me	N	Cl	H	H	H	I	Et	heptafluoroisopropyl	Me	CF ₃
14-37	H	N-oxide	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	Br
14-38	H	N-oxide	Cl	H	H	H	I	H	nonafluoro-2-butyl	H	I
14-39	H	N-oxide	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
14-40	H	N-oxide	Cl	H	H	H	I	H	nonafluoro-2-butyl	H	OCF ₃
14-41	H	N-oxide	Cl	H	H	H	Br	H	pentafluoroethyl	H	CF ₃
14-42	H	N-oxide	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
14-43	H	N-oxide	Cl	H	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
14-44	H	N-oxide	Cl	H	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
14-45	H	N-oxide	Cl	H	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
14-46	H	N-oxide	Cl	H	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
14-47	H	N-oxide	Cl	H	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
14-48	H	N-oxide	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	C ₂ F ₅
14-49	H	N-oxide	Cl	H	H	H	Br	H	nonafluoro-2-butyl	H	C ₂ F ₅
14-50	Me	N-oxide	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	Br
14-51	Me	N-oxide	Cl	H	H	H	I	H	nonafluoro-2-butyl	H	I
14-52	Me	N-oxide	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
14-53	Me	N-oxide	Cl	H	H	H	I	H	nonafluoro-2-butyl	H	OCF ₃
14-54	Me	N-oxide	Cl	H	H	H	Br	H	pentafluoroethyl	H	CF ₃
14-55	Me	N-oxide	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
14-56	Me	N-oxide	Cl	H	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
14-57	Et	N-oxide	Cl	H	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
14-58	Me	N-oxide	Cl	H	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
14-59	Me	N-oxide	Cl	H	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
14-60	Me	N-oxide	Cl	H	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
14-61	Me	N-oxide	Cl	H	H	H	Br	H	heptafluoroisopropyl	H	C ₂ F ₅
14-62	Me	N-oxide	Cl	H	H	H	Br	H	nonafluoro-2-butyl	H	C ₂ F ₅

TABLE 15



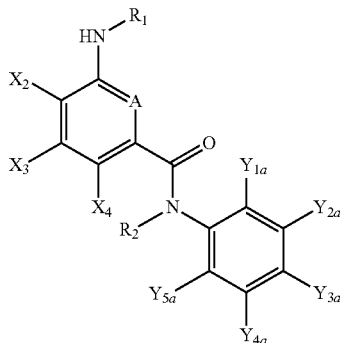
compound number	R ₁	R ₂	A	X ₂	X ₃	X ₄	Y _{1a}	Y _{2a}	Y _{3a}	Y _{4a}	Y _{5a}
15-1	H	H	N	H	H	H	Br	H	heptafluoroisopropyl	H	Br
15-2	H	H	N	H	H	H	I	H	nonafluoro-2-butyl	H	I
15-3	H	H	N	H	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃

TABLE 15-continued



compound number	R ₁	R ₂	A	X ₂	X ₃	X ₄	Y _{1a}	Y _{2a}	Y _{3a}	Y _{4a}	Y _{5a}
15-4	H	H	N	H	H	H	I	H	nonafluoro-2-butyl	H	OCF3
15-5	H	H	N	H	H	H	Br	H	pentafluoroethyl	H	CF3
15-6	H	H	N	H	H	H	Br	H	heptafluoroisopropyl	H	CF3
15-7	H	H	N	H	H	H	I	H	nonafluoro-2-butyl	H	CF3
15-8	H	H	N	H	H	H	OCF3	H	heptafluoroisopropyl	H	CF3
15-9	H	H	N	H	H	H	OCF3	H	nonafluoro-2-butyl	H	CF3
15-10	H	H	N	H	H	H	CF3	H	heptafluoroisopropyl	H	CF3
15-11	H	H	N	H	H	H	CF3	H	nonafluoro-2-butyl	H	CF3
15-12	H	H	N	H	H	H	Br	H	heptafluoroisopropyl	H	C2F5
15-13	H	H	N	H	H	H	Br	H	nonafluoro-2-butyl	H	C2F5
15-14	H	Me	N	H	H	H	Cl	H	heptafluoroisopropyl	H	Cl
15-15	H	Me	N	H	H	H	Br	H	nonafluoro-2-butyl	H	Cl
15-16	H	Me	N	H	H	H	Br	H	heptafluoroisopropyl	H	OCF3
15-17	H	Et	N	H	H	H	Cl	H	nonafluoro-2-butyl	H	OCF3
15-18	H	Me	N	H	H	H	Br	H	pentafluoroethyl	H	CF3
15-19	H	Me	N	H	H	H	Br	H	heptafluoroisopropyl	H	CF3
15-20	H	Me	N	H	H	H	I	H	nonafluoro-2-butyl	H	CF3
15-21	H	Me	N	H	H	H	OCF3	H	heptafluoroisopropyl	H	CF3
15-22	H	Me	N	H	H	H	OCF3	H	nonafluoro-2-butyl	H	CF3
15-23	H	Me	N	H	H	H	CF3	H	heptafluoroisopropyl	H	CF3
15-24	H	Me	N	H	H	H	CF3	H	nonafluoro-2-butyl	H	CF3
15-25	H	Et	N	H	H	H	Br	H	heptafluoroisopropyl	H	C2F5
15-26	H	Me	N	H	H	H	Br	H	nonafluoro-2-butyl	H	C2F5
15-27	H	H	N	H	H	H	Br	H	heptafluoroisopropyl	F	CF3
15-28	H	H	N	H	H	H	Br	Me	nonafluoro-2-butyl	H	CF3
15-29	H	H	N	H	H	H	Br	F	heptafluoroisopropyl	Cl	CF3
15-30	H	H	N	H	H	H	Br	Me	nonafluoro-2-butyl	F	CF3
15-31	H	H	N	H	H	H	Br	Et	heptafluoroisopropyl	Me	CF3
15-32	H	Me	N	H	H	H	I	H	heptafluoroisopropyl	F	CF3
15-33	H	Me	N	H	H	H	I	Me	nonafluoro-2-butyl	H	CF3
15-34	H	Me	N	H	H	H	I	F	heptafluoroisopropyl	Cl	CF3
15-35	H	Me	N	H	H	H	I	Me	nonafluoro-2-butyl	F	CF3
15-36	H	Me	N	H	H	H	I	Et	heptafluoroisopropyl	Me	CF3
15-37	H	H	N-oxide	H	H	H	Br	H	heptafluoroisopropyl	H	Br
15-38	H	H	N-oxide	H	H	H	I	H	nonafluoro-2-butyl	H	I
15-39	H	H	N-oxide	H	H	H	Br	H	heptafluoroisopropyl	H	OCF3
15-40	H	H	N-oxide	H	H	H	I	H	nonafluoro-2-butyl	H	OCF3
15-41	H	H	N-oxide	H	H	H	Br	H	pentafluoroethyl	H	CF3
15-42	H	H	N-oxide	H	H	H	Br	H	heptafluoroisopropyl	H	CF3
15-43	H	H	N-oxide	H	H	H	I	H	nonafluoro-2-butyl	H	CF3
15-44	H	H	N-oxide	H	H	H	OCF3	H	heptafluoroisopropyl	H	CF3
15-45	H	H	N-oxide	H	H	H	OCF3	H	nonafluoro-2-butyl	H	CF3
15-46	H	H	N-oxide	H	H	H	CF3	H	heptafluoroisopropyl	H	CF3
15-47	H	H	N-oxide	H	H	H	CF3	H	nonafluoro-2-butyl	H	CF3
15-48	H	H	N-oxide	H	H	H	Br	H	heptafluoroisopropyl	H	C2F5
15-49	H	H	N-oxide	H	H	H	Br	H	nonafluoro-2-butyl	Fl	C2F5
15-50	H	Me	N-oxide	H	H	H	Br	H	heptafluoroisopropyl	H	Br
15-51	H	Me	N-oxide	H	H	H	I	H	nonafluoro-2-butyl	H	I
15-52	H	Me	N-oxide	H	H	H	Br	H	heptafluoroisopropyl	H	OCF3
15-53	H	Me	N-oxide	H	H	H	I	H	nonafluoro-2-butyl	H	OCF3
15-54	H	Me	N-oxide	H	H	H	Br	H	pentafluoroethyl	H	CF3
15-55	H	Me	N-oxide	H	H	H	Br	H	heptafluoroisopropyl	H	CF3
15-56	H	Me	N-oxide	H	H	H	I	H	nonafluoro-2-butyl	H	CF3
15-57	H	Et	N-oxide	H	H	H	OCF3	H	heptafluoroisopropyl	H	CF3
15-58	H	Me	N-oxide	H	H	H	OCF3	H	nonafluoro-2-butyl	H	CF3
15-59	H	Me	N-oxide	H	H	H	CF3	H	heptafluoroisopropyl	H	CF3
15-60	H	Me	N-oxide	H	H	H	CF3	H	nonafluoro-2-butyl	H	CF3
15-61	H	Me	N-oxide	H	H	H	Br	H	heptafluoroisopropyl	H	C2F5
15-62	H	Me	N-oxide	H	H	H	Br	H	nonafluoro-2-butyl	H	C2F5
15-63	Me	H	N	H	H	H	Br	H	heptafluoroisopropyl	H	Br

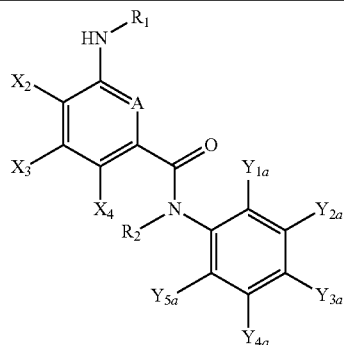
TABLE 15-continued



compound number	R ₁	R ₂	A	X ₂	X ₃	X ₄	Y _{1a}	Y _{2a}	Y _{3a}	Y _{4a}	Y _{5a}
15-64	Me	H	N	H	H	H	I	H	nonafluoro-2-butyl	H	I
15-65	Me	H	N	H	H	H	Br	H	heptafluoroisopropyl	H	OCF3
15-66	Me	H	N	H	H	H	I	H	nonafluoro-2-butyl	H	OCF3
15-67	Me	H	N	H	H	H	Br	H	pentafluoroethyl	H	CF3
15-68	Me	H	N	H	H	H	Br	H	heptafluoroisopropyl	H	CF3
15-69	Me	H	N	H	H	H	I	H	nonafluoro-2-butyl	H	CF3
15-70	Me	H	N	H	H	H	OCF3	H	heptafluoroisopropyl	H	CF3
15-71	Me	H	N	H	H	H	OCF3	H	nonafluoro-2-butyl	H	CF3
15-72	Me	H	N	H	H	H	CF3	H	heptafluoroisopropyl	H	CF3
15-73	Me	H	N	H	H	H	CF3	H	nonafluoro-2-butyl	H	CF3
15-74	Me	H	N	H	H	H	Br	H	heptafluoroisopropyl	H	C2F5
15-75	Me	H	N	H	H	H	Br	H	nonafluoro-2-butyl	H	C2F5
15-76	Me	Me	N	H	H	H	Cl	H	heptafluoroisopropyl	H	Cl
15-77	Me	Me	N	H	H	H	Br	H	nonafluoro-2-butyl	H	Cl
15-78	Me	Me	N	H	H	H	Br	H	heptafluoroisopropyl	H	OCF3
15-79	Me	Et	N	H	H	H	Cl	H	nonafluoro-2-butyl	H	OCF3
15-80	Me	Me	N	H	H	Id	Br	H	pentafluoroethyl	H	CF3
15-81	Me	Me	N	H	H	H	Br	H	heptafluoroisopropyl	H	CF3
15-82	Me	Me	N	H	H	H	I	H	nonafluoro-2-butyl	H	CF3
15-83	Me	Me	N	H	H	H	OCF3	H	heptafluoroisopropyl	H	CF3
15-84	Et	Me	N	H	H	H	OCF3	H	nonafluoro-2-butyl	H	CF3
15-85	Me	Me	N	H	H	H	CF3	H	heptafluoroisopropyl	H	CF3
15-86	Me	Me	N	H	H	H	CF3	H	nonafluoro-2-butyl	H	CF3
15-87	Me	Et	N	H	H	H	Br	H	heptafluoroisopropyl	H	C2F5
15-88	Me	Me	N	H	H	H	Br	H	nonafluoro-2-butyl	H	C2F5
15-89	Me	H	N	H	H	H	Br	H	heptafluoroisopropyl	F	CF3
15-90	Me	H	N	H	H	H	Br	Me	nonafluoro-2-butyl	H	CF3
15-91	Me	H	N	H	H	H	Br	F	heptafluoroisopropyl	Cl	CF3
15-92	Me	H	N	H	H	H	Br	Me	nonafluoro-2-butyl	F	CF3
15-93	Me	H	N	H	H	H	Br	Et	heptafluoroisopropyl	Me	CF3
15-94	Et	Me	N	H	H	H	I	H	heptafluoroisopropyl	F	CF3
15-95	Me	Me	N	H	H	H	I	Me	nonafluoro-2-butyl	H	CF3
15-96	Me	Me	N	H	H	H	I	F	heptafluoroisopropyl	Cl	CF3
15-97	Me	Me	N	H	H	H	I	Me	nonafluoro-2-butyl	F	CF3
15-98	Me	Me	N	H	H	H	I	Et	heptafluoroisopropyl	Me	CF3
15-99	Me	H	N-oxide	H	H	H	Br	H	heptafluoroisopropyl	H	Br
15-100	Me	H	N-oxide	H	H	H	I	H	nonafluoro-2-butyl	H	I
15-101	Me	H	N-oxide	H	H	H	Br	H	heptafluoroisopropyl	H	OCF3
15-102	Me	H	N-oxide	H	H	H	I	H	nonafluoro-2-butyl	H	OCF3
15-103	Me	H	N-oxide	H	H	H	Br	H	pentafluoroethyl	H	CF3
15-104	Me	H	N-oxide	H	H	H	Br	H	heptafluoroisopropyl	H	CF3
15-105	Me	H	N-oxide	H	H	H	I	H	nonafluoro-2-butyl	H	CF3
15-106	Me	H	N-oxide	H	H	H	OCF3	H	heptafluoroisopropyl	H	CF3
15-107	Me	H	N-oxide	H	H	H	OCF3	H	nonafluoro-2-butyl	H	CF3
15-108	Me	H	N-oxide	H	H	H	CF3	H	heptafluoroisopropyl	H	CF3
15-109	Me	H	N-oxide	H	H	H	CF3	H	nonafluoro-2-butyl	H	CF3
15-110	Me	H	N-oxide	H	H	H	Br	H	heptafluoroisopropyl	H	C2F5
15-111	Me	H	N-oxide	H	H	H	Br	H	nonafluoro-2-butyl	H	C2F5
15-112	Me	Me	N-oxide	H	H	H	Br	H	heptafluoroisopropyl	H	Br
15-113	Me	Me	N-oxide	H	H	H	I	H	nonafluoro-2-butyl	H	I
15-114	Me	Me	N-oxide	H	H	H	Br	H	heptafluoroisopropyl	H	OCF3
15-115	Me	Me	N-oxide	H	H	H	I	H	nonafluoro-2-butyl	H	OCF3
15-116	Me	Me	N-oxide	H	H	H	Br	H	pentafluoroethyl	H	CF3
15-117	Me	Me	N-oxide	H	H	H	Br	H	heptafluoroisopropyl	H	CF3
15-118	Me	Me	N-oxide	H	H	H	I	H	nonafluoro-2-butyl	H	CF3
15-119	Me	Et	N-oxide	H	H	H	OCF3	H	heptafluoroisopropyl	H	CF3
15-120	Me	Me	N-oxide	H	H	H	OCF3	H	nonafluoro-2-butyl	H	CF3
15-121	Me	Me	N-oxide	H	H	H	CF3	H	heptafluoroisopropyl	H	CF3
15-122	Et	Me	N-oxide	H	H	H	CF3	H	nonafluoro-2-butyl	H	CF3
15-123	Me	Me	N-oxide	H	H	H	Br	H	heptafluoroisopropyl	H	C2F5

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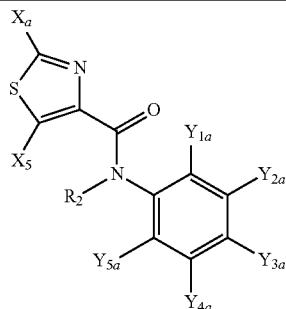
TABLE 15-continued



compound number	R ₁	R ₂	A	X ₂	X ₃	X ₄	Y _{1a}	Y _{2a}	Y _{3a}	Y _{4a}	Y _{5a}
15-124	Me	Me	N-oxide	H	H	H	Br	H	nonafluoro-2-butyl	H	C2F5

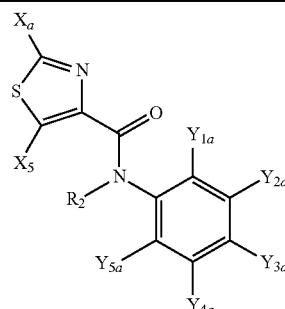
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TABLE 16



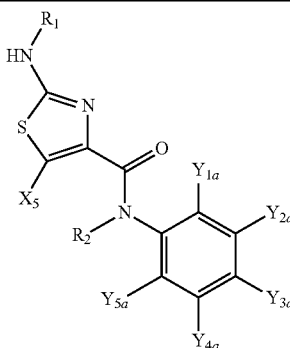
compound number	R ₂	Xa	X ₅	Y _{1a}	Y _{2a}	Y _{3a}	Y _{4a}	Y _{5a}
16-1	H	Cl	H	Br	H	heptafluoroisopropyl	H	Br
16-2	H	Cl	H	I	H	nonafluoro-2-butyl	H	I
16-3	H	Cl	H	Br	H	heptafluoroisopropyl	H	OCF3
16-4	H	Cl	H	I	H	nonafluoro-2-butyl	H	OCF3
16-5	H	Cl	H	Br	H	pentafluoroethyl	H	CF3
16-6	H	Cl	H	Br	H	heptafluoroisopropyl	H	CF3
16-7	H	Cl	H	I	H	nonafluoro-2-butyl	H	CF3
16-8	H	Cl	H	OCF3	H	heptafluoroisopropyl	H	CF3
16-9	H	Cl	H	OCF3	H	nonafluoro-2-butyl	H	CF3
16-10	H	Cl	Cl	CF3	H	heptafluoroisopropyl	H	CF3
16-11	H	Cl	H	CF3	H	nonafluoro-2-butyl	H	CF3
16-12	H	Cl	H	Br	H	heptafluoroisopropyl	H	C2F5
16-13	H	Cl	H	Br	H	nonafluoro-2-butyl	H	C2F5
16-14	Me	Cl	H	Cl	H	heptafluoroisopropyl	H	Cl
16-15	Me	Cl	H	Br	H	nonafluoro-2-butyl	H	Cl
16-16	Me	Cl	H	Br	H	heptafluoroisopropyl	H	OCF3
16-17	Et	Cl	H	Cl	H	nonafluoro-2-butyl	H	OCF3
16-18	Me	Cl	H	Br	H	pentafluoroethyl	H	CF3
16-19	Me	Cl	H	Br	H	heptafluoroisopropyl	H	CF3
16-20	Me	Cl	H	I	H	nonafluoro-2-butyl	H	CF3
16-21	Me	Cl	H	OCF3	H	heptafluoroisopropyl	H	CF3
16-22	Me	Cl	H	OCF3	H	nonafluoro-2-butyl	H	CF3
16-23	Me	Cl	Cl	CF3	H	heptafluoroisopropyl	H	CF3
16-24	Me	I	H	CF3	H	nonafluoro-2-butyl	H	CF3
16-25	Et	Cl	H	Br	H	heptafluoroisopropyl	H	C2F5
16-26	Me	Cl	H	Br	H	nonafluoro-2-butyl	H	C2F5
16-27	H	Cl	H	Br	H	heptafluoroisopropyl	F	CF3
16-28	H	Cl	H	Br	Me	nonafluoro-2-butyl	H	CF3
16-29	H	Cl	H	Br	F	heptafluoroisopropyl	Cl	CF3
16-30	H	Cl	H	Br	Me	nonafluoro-2-butyl	F	CF3
16-31	H	Cl	H	Br	Et	heptafluoroisopropyl	Me	CF3
16-32	Me	Cl	H	I	H	heptafluoroisopropyl	F	CF3
16-33	Me	Cl	H	I	Me	nonafluoro-2-butyl	H	CF3
16-34	Me	Cl	H	I	F	heptafluoroisopropyl	Cl	CF3

TABLE 16-continued



compound number	R ₂	Xa	X ₅	Y _{1a}	Y _{2a}	Y _{3a}	Y _{4a}	Y _{5a}
16-35	Me	Cl	H	I	Me	nonafluoro-2-butyl	F	CF3
16-36	Me	Cl	H	I	Et	heptafluoroisopropyl	Me	CF3

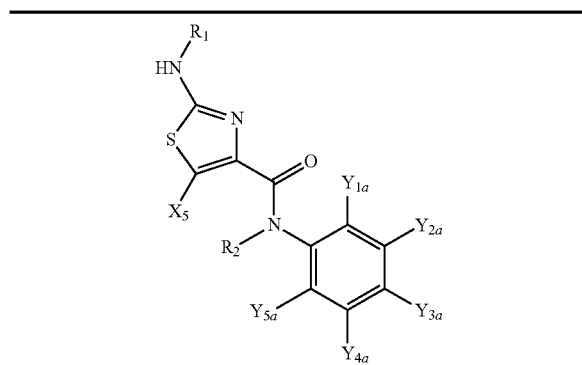
TABLE 17



compound number	R ₁	R ₂	X ₅	Y _{1a}	Y _{2a}	Y _{3a}	Y _{4a}	Y _{5a}
17-1	H	H	H	Br	H	heptafluoroisopropyl	H	Br
17-2	H	H	H	I	H	nonafluoro-2-butyl	H	I
17-3	H	H	H	Br	H	heptafluoroisopropyl	H	OCF3
17-4	H	H	H	I	H	nonafluoro-2-butyl	H	OCF3
17-5	H	H	H	Br	H	pentafluoroethyl	H	CF3
17-6	H	H	H	Br	H	heptafluoroisopropyl	H	CF3
17-7	H	H	H	I	H	nonafluoro-2-butyl	H	CF3

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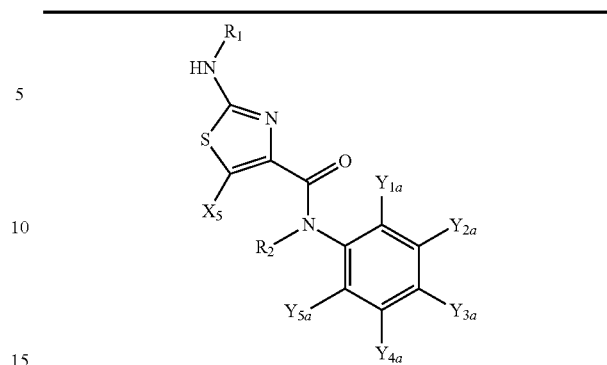
TABLE 17-continued



compound number	R ₁	R ₂	X ₅	Y _{1a}	Y _{2a}	Y _{3a}	Y _{4a}	Y _{5a}
17-8	H	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
17-9	H	H	Cl	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
17-10	H	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
17-11	H	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
17-12	H	H	H	Br	H	heptafluoroisopropyl	H	C ₂ F ₅
17-13	H	H	H	Br	H	nonafluoro-2-butyl	H	C ₂ F ₅
17-14	H	Me	H	Cl	H	heptafluoroisopropyl	H	Cl
17-15	H	Me	H	Br	H	nonafluoro-2-butyl	H	Cl
17-16	H	Me	H	Br	H	heptafluoroisopropyl	H	OCF ₃
17-17	H	Et	H	Cl	H	nonafluoro-2-butyl	H	OCF ₃
17-18	H	Me	H	Br	H	pentafluoroethyl	H	CF ₃
17-19	H	Me	H	Br	H	heptafluoroisopropyl	H	CF ₃
17-20	H	Me	H	I	H	nonafluoro-2-butyl	H	CF ₃
17-21	H	Me	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
17-22	H	Me	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
17-23	H	Me	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
17-24	H	Me	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
17-25	H	Et	H	Br	H	heptafluoroisopropyl	H	C ₂ F ₅
17-26	H	Me	H	Br	H	nonafluoro-2-butyl	H	C ₂ F ₅
17-27	H	H	H	Br	H	heptafluoroisopropyl	F	CF ₃
17-28	H	H	H	Br	Me	nonafluoro-2-butyl	H	CF ₃
17-29	H	H	H	Br	F	heptafluoroisopropyl	Cl	CF ₃
17-30	H	H	H	Br	Me	nonafluoro-2-butyl	F	CF ₃
17-31	H	H	H	Br	Et	heptafluoroisopropyl	Me	CF ₃
17-32	H	Me	H	I	H	heptafluoroisopropyl	F	CF ₃
17-33	H	Me	H	I	Me	nonafluoro-2-butyl	H	CF ₃
17-34	H	Me	H	I	F	heptafluoroisopropyl	Cl	CF ₃
17-35	H	Me	H	I	Me	nonafluoro-2-butyl	F	CF ₃
17-36	H	Me	H	I	Et	heptafluoroisopropyl	Me	CF ₃
17-37	Me	H	H	Br	H	heptafluoroisopropyl	H	Br
17-38	Me	H	H	I	H	nonafluoro-2-butyl	H	I
17-39	Me	H	H	Br	H	heptafluoroisopropyl	H	OCF ₃
17-40	Me	H	H	I	H	nonafluoro-2-butyl	H	OCF ₃

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TABLE 17-continued

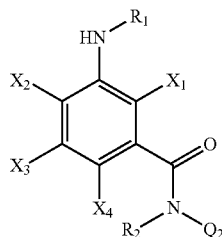


compound number	R ₁	R ₂	X ₅	Y _{1a}	Y _{2a}	Y _{3a}	Y _{4a}	Y _{5a}
17-41	Me	H	H	Br	H	pentafluoroethyl	H	CF ₃
17-42	Me	H	H	Br	H	heptafluoroisopropyl	H	CF ₃
17-43	Me	H	H	I	H	nonafluoro-2-butyl	H	CF ₃
17-44	Me	H	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
17-45	Me	H	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
17-46	Me	H	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
17-47	Me	H	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
17-48	Me	H	H	Br	H	heptafluoroisopropyl	H	C ₂ F ₅
17-49	Me	H	H	Br	H	nonafluoro-2-butyl	H	C ₂ F ₅
17-50	Me	Me	H	Cl	H	heptafluoroisopropyl	H	Cl
17-51	Me	Me	H	Br	H	nonafluoro-2-butyl	H	Cl
17-52	Me	Me	H	Br	H	heptafluoroisopropyl	H	OCF ₃
17-53	Me	Et	H	Cl	H	nonafluoro-2-butyl	H	OCF ₃
17-54	Me	Me	Cl	Br	H	pentafluoroethyl	H	CF ₃
17-55	Me	Me	H	Br	H	heptafluoroisopropyl	H	CF ₃
17-56	Me	Me	H	I	H	nonafluoro-2-butyl	H	CF ₃
17-57	Me	Me	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
17-58	Et	Me	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
17-59	Me	Me	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
17-60	Me	Me	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
17-61	Me	Et	H	Br	H	heptafluoroisopropyl	H	C ₂ F ₅
17-62	Me	Me	H	Br	H	nonafluoro-2-butyl	H	C ₂ F ₅
17-63	Me	H	H	Br	H	heptafluoroisopropyl	F	CF ₃
17-64	Me	H	H	Br	Me	nonafluoro-2-butyl	H	CF ₃
17-65	Me	H	H	Br	F	heptafluoroisopropyl	Cl	CF ₃
17-66	Me	H	H	Br	Me	nonafluoro-2-butyl	F	CF ₃
17-67	Me	H	H	Br	Et	heptafluoroisopropyl	Me	CF ₃
17-68	Et	Me	H	I	H	heptafluoroisopropyl	F	CF ₃
17-69	Me	Me	H	I	Me	nonafluoro-2-butyl	H	CF ₃
17-70	Me	Me	H	I	F	heptafluoroisopropyl	Cl	CF ₃
17-71	Me	Me	H	I	Me	nonafluoro-2-butyl	F	CF ₃
17-72	Me	Me	H	I	Et	heptafluoroisopropyl	Me	CF ₃

TABLE 18

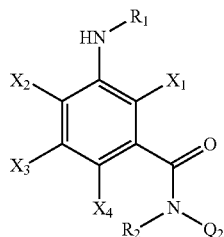
compound number	R ₁	R ₂	L	D	X ₁	X ₂	X ₃	X ₄	Q ₂
18-1	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-2	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2,6-dibromo-4-pentafluoroethyl-phenyl
18-3	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2,6-diiodo-4-pentafluoroethyl-phenyl
18-4	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-bromo-6-trifluoromethyl-4-pentafluoroethyl-phenyl

TABLE 18-continued



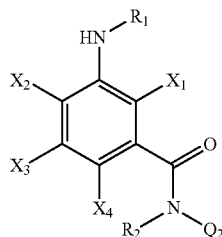
compound number	R ₁	R ₂	L	D	X ₁	X ₂	X ₃	X ₄	Q ₂
18-5	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-iodo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
18-6	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-chloro-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-7	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-bromo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-8	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-iodo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-9	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-bromo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-10	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-iodo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-11	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-12	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-13	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-14	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2,6-ditrifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-15	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-16	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-17	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-bromo-6-trifluoromethoxy-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-18	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-19	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-bromo-6-trifluoromethylthio-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-20	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-21	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-22	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-bromo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-23	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-iodo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-24	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-chloro-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-25	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-bromo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-26	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-iodo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-27	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-bromo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-28	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-iodo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-29	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2,6-dichloro-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-30	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-31	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-32	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2,6-ditrifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-33	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-34	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-35	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-bromo-6-trifluoromethoxy-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-36	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-bromo-6-iodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

TABLE 18-continued



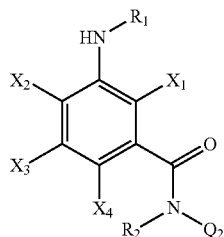
compound number	R ₁	R ₂	L	D	X ₁	X ₂	X ₃	X ₄	Q ₂
18-37	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-bromo-6-trifluoromethylthio-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-ethyl)-phenyl
18-38	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-39	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-40	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-bromo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-41	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-iodo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-42	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	F	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-43	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	F	H	H	H	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-44	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	F	H	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-45	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	F	H	H	H	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-46	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	F	H	H	H	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-47	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	F	H	H	H	2-bromo-6-trifluoromethoxy-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-48	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	F	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-49	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	F	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-50	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	F	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-51	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	F	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-52	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	F	H	H	H	2,6-ditrifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-53	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	F	H	H	H	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-54	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	F	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-55	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	F	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-56	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	F	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-57	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	F	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-58	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	F	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-59	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	F	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-60	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	CN	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-61	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	CN	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-62	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	CN	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-63	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	CN	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-64	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	CN	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-65	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	H	CN	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-66	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	NO ₂	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-67	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	NO ₂	H	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-68	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	NO ₂	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 18-continued



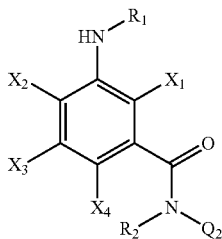
compound number	R ₁	R ₂	L	D	X ₁	X ₂	X ₃	X ₄	Q ₂
18-69	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	NO ₂	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-70	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	NO ₂	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-71	—L—D	H	—CH ₂ CH ₂ —	CONH ₂	NO ₂	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-72	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-73	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-74	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-75	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-76	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-77	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-78	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	F	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-79	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	F	H	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-80	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	F	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-81	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	F	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-82	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	F	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-83	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	F	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-84	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	F	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-85	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	CN	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-86	H	—L—D	—CH ₂ CH ₂ —	CONH ₂	NO ₂	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-87	—L—D	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-88	—L—D	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-89	—L—D	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-90	—L—D	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-91	—L—D	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-92	—L—D	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-93	—L—D	—L—D	—CH ₂ CH ₂ —	CONH ₂	F	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-94	—L—D	—L—D	—CH ₂ CH ₂ —	CONH ₂	F	H	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-95	—L—D	—L—D	—CH ₂ CH ₂ —	CONH ₂	F	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-96	—L—D	—L—D	—CH ₂ CH ₂ —	CONH ₂	F	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-97	—L—D	—L—D	—CH ₂ CH ₂ —	CONH ₂	F	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-98	—L—D	—L—D	—CH ₂ CH ₂ —	CONH ₂	F	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
18-99	—L—D	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	F	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-100	—L—D	—L—D	—CH ₂ CH ₂ —	CONH ₂	H	CN	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 18-continued



compound number	R ₁	R ₂	L	D	X ₁	X ₂	X ₃	X ₄	Q ₂
18-101	—L—D	—L—D	—CH ₂ CH ₂ —	CONH ₂	NO ₂	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-102	—L—D	H	—CH ₂ CH ₂ —	CONHMe	H	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-103	—L—D	H	—CH ₂ CH ₂ —	CONHMe	H	H	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-104	—L—D	H	—CH ₂ CH ₂ —	CONHMe	H	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-105	—L—D	H	—CH ₂ CH ₂ —	CONMe ₂	H	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-106	—L—D	H	—CH ₂ CH ₂ —	CONMe ₂	H	H	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-107	—L—D	H	—CH ₂ CH ₂ —	CONMe ₂	H	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-108	—L—D	H	—CH ₂ CH ₂ —	CONMe ₂	F	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-109	—L—D	H	—CH ₂ CH ₂ —	CONMe ₂	F	H	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-110	—L—D	H	—CH ₂ CH ₂ —	CONMe ₂	F	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
18-111	—L—D	H	—CH ₂ CH ₂ —	CONMe ₂	H	H	H	H	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 19



compound number	R ₁	R ₂	L	D	X ₁	X ₂	X ₃	X ₄	Q ₂
19-1	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-2	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2,6-dibromo-4-pentafluoroethyl-phenyl
19-3	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2,6-diiodo-4-pentafluoroethyl-phenyl
19-4	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-bromo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
19-5	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-iodo-6-trifluoromethyl-4-pentafluoroethyl-phenyl
19-6	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-chloro-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-7	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-bromo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-8	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-iodo-6-methyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-9	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-bromo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-10	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-iodo-6-ethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-11	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-12	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 19-continued

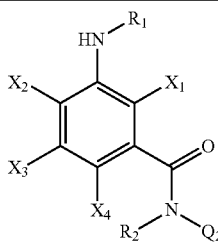
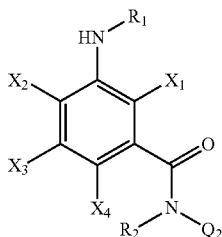
compound number										Q ₂
	R ₁	R ₂	L	D	X ₁	X ₂	X ₃	X ₄		
19-13	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
19-14	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2,6-ditrifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
19-15	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
19-16	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
19-17	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-bromo-6-trifluoromethoxy-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
19-18	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
19-19	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-bromo-6-trifluoromethylthio-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
19-20	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
19-21	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
19-22	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-bromo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
19-23	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-iodo-6-pentafluoroethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
19-24	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-chloro-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
19-25	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-bromo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
19-26	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-iodo-6-methyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
19-27	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-bromo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
19-28	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-iodo-6-ethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
19-29	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2,6-dichloro-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
19-30	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2,6-dibromo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
19-31	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2,6-diiodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
19-32	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2,6-ditrifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
19-33	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
19-34	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
19-35	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-bromo-6-trifluoromethoxy-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
19-36	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-bromo-6-iodo-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
19-37	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-bromo-6-trifluoromethylthio-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
19-38	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
19-39	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-bromo-6-trifluoromethylsulfonyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
19-40	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-bromo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
19-41	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-iodo-6-pentafluoroethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
19-42	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	F	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
19-43	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	F	H	H	H	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
19-44	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	F	H	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	

TABLE 19-continued



compound number	R ₁	R ₂	L	D	X ₁	X ₂	X ₃	X ₄	Q ₂
19-45	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	F	H	H	H	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-46	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	F	H	H	H	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-47	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	F	H	H	H	2-bromo-6-trifluoromethoxy-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-48	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	F	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-49	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	F	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-50	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	F	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
19-51	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	F	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
19-52	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	F	H	H	H	2,6-ditrifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-53	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	F	H	H	H	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-54	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	F	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-55	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	F	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-56	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	F	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-57	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	F	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-58	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	F	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
19-59	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	F	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
19-60	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	CN	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-61	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	CN	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-62	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	CN	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-63	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	CN	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-64	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	CN	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
19-65	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	CN	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
19-66	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	NO ₂	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-67	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	NO ₂	H	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-68	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	NO ₂	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-69	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	NO ₂	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-70	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	NO ₂	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
19-71	—L—D	H	—CH ₂ CH ₂ —	SO ₂ NH ₂	NO ₂	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
19-72	H	—L—D	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-73	H	—L—D	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-74	H	—L—D	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
19-75	H	—L—D	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
19-76	H	—L—D	—CH ₂ CH ₂ —	SO ₂ NH ₂	F	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 19-continued

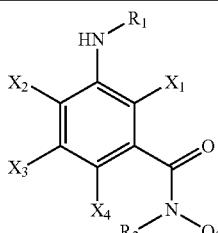
compound number											Q ₂
	R ₁	R ₂	L	D	X ₁	X ₂	X ₃	X ₄			
19-77	H	—L—D	—CH ₂ CH ₂ —	SO ₂ NH ₂	F	H	H	H		2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
19-78	H	—L—D	—CH ₂ CH ₂ —	SO ₂ NH ₂	F	H	H	H		2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
19-79	H	—L—D	—CH ₂ CH ₂ —	SO ₂ NH ₂	F	H	H	H		2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
19-80	H	—L—D	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	F	H	H		2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
19-81	H	—L—D	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	CN	H	H		2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
19-82	H	—L—D	—CH ₂ CH ₂ —	SO ₂ NH ₂	NO ₂	H	H	H		2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
19-83	—L—D	—L—D	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H		2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
19-84	—L—D	—L—D	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H		2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
19-85	—L—D	—L—D	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H		2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
19-86	—L—D	—L—D	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	H	H	H		2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
19-87	—L—D	—L—D	—CH ₂ CH ₂ —	SO ₂ NH ₂	F	H	H	H		2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
19-88	—L—D	—L—D	—CH ₂ CH ₂ —	SO ₂ NH ₂	F	H	H	H		2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
19-89	—L—D	—L—D	—CH ₂ CH ₂ —	SO ₂ NH ₂	F	H	H	H		2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
19-90	—L—D	—L—D	—CH ₂ CH ₂ —	SO ₂ NH ₂	F	H	H	H		2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
19-91	—L—D	—L—D	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	F	H	H		2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
19-92	—L—D	—L—D	—CH ₂ CH ₂ —	SO ₂ NH ₂	H	CN	H	H		2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
19-93	—L—D	—L—D	—CH ₂ CH ₂ —	SO ₂ NH ₂	NO ₂	H	H	H		2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	

TABLE 20

compound number	R ₁	R ₂	L	D	X ₁	X ₂	X ₃	X ₄	Q ₂
20-1	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
20-2	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	H	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
20-3	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
20-4	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
20-5	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl

TABLE 20-continued

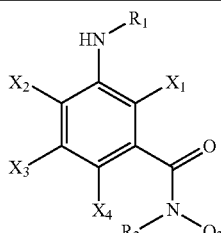
compound number										Q ₂
	R ₁	R ₂	L	D	X ₁	X ₂	X ₃	X ₄		
20-6	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
20-7	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	F	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-8	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	F	H	H	H	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-9	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	F	H	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-10	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	F	H	H	H	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-11	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	F	H	H	H	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-12	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	F	H	H	H	2-bromo-6-trifluoromethoxy-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-13	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	F	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-14	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	F	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-15	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	F	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
20-16	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	F	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
20-17	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	F	H	H	H	2,6-ditrifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-18	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	F	H	H	H	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-19	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	F	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-20	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	F	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-21	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	F	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-22	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	F	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
20-23	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	CN	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-24	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	CN	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-25	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	CN	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-26	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	H	CN	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
20-27	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	NO ₂	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-28	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	NO ₂	H	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-29	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	NO ₂	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-30	—L—D	H	—CH ₂ CH ₂ —	SO ₂ Me	NO ₂	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
20-31	H	—L—D	—CH ₂ CH ₂ —	SO ₂ Me	H	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-32	H	—L—D	—CH ₂ CH ₂ —	SO ₂ Me	H	H	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-33	H	—L—D	—CH ₂ CH ₂ —	SO ₂ Me	H	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-34	H	—L—D	—CH ₂ CH ₂ —	SO ₂ Me	H	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
20-35	H	—L—D	—CH ₂ CH ₂ —	SO ₂ Me	F	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-36	H	—L—D	—CH ₂ CH ₂ —	SO ₂ Me	F	H	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-37	H	—L—D	—CH ₂ CH ₂ —	SO ₂ Me	F	H	H	H	2-bromo-6-trifluoromethylthio-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-ethyl)-phenyl	

TABLE 20-continued

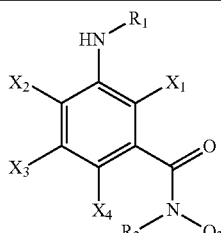
compound number										Q ₂
	R ₁	R ₂	L	D	X ₁	X ₂	X ₃	X ₄		
20-38	H	—L—D	—CH ₂ CH ₂ —	SO ₂ Me	F	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
20-39	H	—L—D	—CH ₂ CH ₂ —	SO ₂ Me	H	F	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-40	H	—L—D	—CH ₂ CH ₂ —	SO ₂ Me	H	CN	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-41	H	—L—D	—CH ₂ CH ₂ —	SO ₂ Me	NO ₂	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-42	—L—D	—L—D	—CH ₂ CH ₂ —	SO ₂ Me	H	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-43	—L—D	—L—D	—CH ₂ CH ₂ —	SO ₂ Me	H	H	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-44	—L—D	—L—D	—CH ₂ CH ₂ —	SO ₂ Me	H	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-45	—L—D	—L—D	—CH ₂ CH ₂ —	SO ₂ Me	H	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
20-46	—L—D	—L—D	—CH ₂ CH ₂ —	SO ₂ Me	F	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-47	—L—D	—L—D	—CH ₂ CH ₂ —	SO ₂ Me	F	H	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-48	—L—D	—L—D	—CH ₂ CH ₂ —	SO ₂ Me	F	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-49	—L—D	—L—D	—CH ₂ CH ₂ —	SO ₂ Me	F	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
20-50	—L—D	—L—D	—CH ₂ CH ₂ —	SO ₂ Me	H	F	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-51	—L—D	—L—D	—CH ₂ CH ₂ —	SO ₂ Me	H	CN	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-52	—L—D	—L—D	—CH ₂ CH ₂ —	SO ₂ Me	NO ₂	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-53	—L—D	H	—CH ₂ CH ₂ —	SOMe	H	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-54	—L—D	H	—CH ₂ CH ₂ —	SOMe	H	H	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-55	—L—D	H	—CH ₂ CH ₂ —	SOMe	H	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-56	—L—D	H	—CH ₂ CH ₂ —	SOMe	H	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
20-57	—L—D	H	—CH ₂ CH ₂ —	SOMe	F	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-58	—L—D	H	—CH ₂ CH ₂ —	SOMe	F	H	H	H	2,6-dichloro-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-59	—L—D	H	—CH ₂ CH ₂ —	SOMe	F	H	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-60	—L—D	H	—CH ₂ CH ₂ —	SOMe	F	H	H	H	2,6-diiodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-61	—L—D	H	—CH ₂ CH ₂ —	SOMe	F	H	H	H	2-bromo-6-iodo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-62	—L—D	H	—CH ₂ CH ₂ —	SOMe	F	H	H	H	2-bromo-6-trifluoromethoxy-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-63	—L—D	H	—CH ₂ CH ₂ —	SOMe	F	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-64	—L—D	H	—CH ₂ CH ₂ —	SOMe	F	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-65	—L—D	H	—CH ₂ CH ₂ —	SOMe	F	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
20-66	—L—D	H	—CH ₂ CH ₂ —	SOMe	F	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
20-67	—L—D	H	—CH ₂ CH ₂ —	SOMe	F	H	H	H	2,6-ditrifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-68	—L—D	H	—CH ₂ CH ₂ —	SOMe	F	H	H	H	2-bromo-6-trifluoromethylsulfinyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-69	—L—D	H	—CH ₂ CH ₂ —	SOMe	H	F	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	

TABLE 20-continued

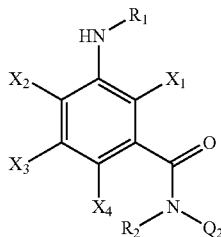
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compound number	R ₁	R ₂	L	D	X ₁	X ₂	X ₃	X ₄	Q ₂	
20-70	—L—D	H	—CH ₂ CH ₂ —	SOMe	H	F	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-71	—L—D	H	—CH ₂ CH ₂ —	SOMe	H	F	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-72	—L—D	H	—CH ₂ CH ₂ —	SOMe	H	F	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
20-73	—L—D	H	—CH ₂ CH ₂ —	SOMe	H	CN	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-74	—L—D	H	—CH ₂ CH ₂ —	SOMe	H	CN	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-75	—L—D	H	—CH ₂ CH ₂ —	SOMe	H	CN	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-76	—L—D	H	—CH ₂ CH ₂ —	SOMe	H	CN	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
20-77	—L—D	H	—CH ₂ CH ₂ —	SOMe	NO ₂	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-78	—L—D	H	—CH ₂ CH ₂ —	SOMe	NO ₂	H	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-79	—L—D	H	—CH ₂ CH ₂ —	SOMe	NO ₂	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-80	—L—D	H	—CH ₂ CH ₂ —	SOMe	NO ₂	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
20-81	H	—L—D	—CH ₂ CH ₂ —	SOMe	H	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-82	H	—L—D	—CH ₂ CH ₂ —	SOMe	H	H	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-83	H	—L—D	—CH ₂ CH ₂ —	SOMe	H	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-84	H	—L—D	—CH ₂ CH ₂ —	SOMe	H	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
20-85	H	—L—D	—CH ₂ CH ₂ —	SOMe	F	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-86	H	—L—D	—CH ₂ CH ₂ —	SOMe	F	H	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-87	H	—L—D	—CH ₂ CH ₂ —	SOMe	F	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-88	H	—L—D	—CH ₂ CH ₂ —	SOMe	F	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
20-89	H	—L—D	—CH ₂ CH ₂ —	SOMe	H	F	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-90	H	—L—D	—CH ₂ CH ₂ —	SOMe	H	CN	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-91	H	—L—D	—CH ₂ CH ₂ —	SOMe	NO ₂	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-92	—L—D	—L—D	—CH ₂ CH ₂ —	SOMe	H	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-93	—L—D	—L—D	—CH ₂ CH ₂ —	SOMe	H	H	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-94	—L—D	—L—D	—CH ₂ CH ₂ —	SOMe	H	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-95	—L—D	—L—D	—CH ₂ CH ₂ —	SOMe	H	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl	
20-96	—L—D	—L—D	—CH ₂ CH ₂ —	SOMe	F	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-97	—L—D	—L—D	—CH ₂ CH ₂ —	SOMe	F	H	H	H	2,6-dibromo-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	
20-98	—L—D	—L—D	—CH ₂ CH ₂ —	SOMe	F	H	H	H	2-bromo-6-trifluoromethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl	

TABLE 20-continued

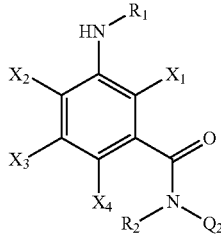
compound number									Q ₂
	R ₁	R ₂	L	D	X ₁	X ₂	X ₃	X ₄	
20-99	—L—D	—L—D	—CH ₂ CH ₂ —	SOMe	F	H	H	H	2-iodo-6-trifluoromethyl-4-(1,2,2,3,3,3-hexafluoro-1-trifluoromethyl-propyl)-phenyl
20-100	—L—D	—L—D	—CH ₂ CH ₂ —	SOMe	H	F	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
20-101	—L—D	—L—D	—CH ₂ CH ₂ —	SOMe	H	CN	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl
20-102	—L—D	—L—D	—CH ₂ CH ₂ —	SOMe	NO ₂	H	H	H	2,6-dimethyl-4-(1,2,2,2-tetrafluoro-1-trifluoromethyl-ethyl)-phenyl

TABLE 21

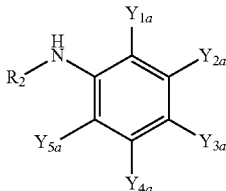
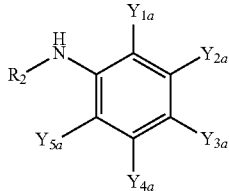
compound number						
	R ₂	Y _{1a}	Y _{2a}	Y _{3a}	Y _{4a}	Y _{5a}
21-1	H	H	H	pentafluoroethyl	H	CF ₃
21-2	H	H	H	heptafluoroisopropyl	H	CF ₃
21-3	H	H	H	nonafluoro-2-butyl	H	CF ₃
21-4	H	H	H	heptafluoroisopropyl	H	C ₂ F ₅
21-5	H	H	H	nonafluoro-2-butyl	H	C ₂ F ₅
21-6	H	Br	H	pentafluoroethyl	H	CF ₃
21-7	H	F	H	heptafluoroisopropyl	H	CF ₃
21-8	H	Cl	H	heptafluoroisopropyl	H	CF ₃
21-9	H	Br	H	heptafluoroisopropyl	H	CF ₃
21-10	H	I	H	heptafluoroisopropyl	H	CF ₃
21-11	H	F	H	nonafluoro-2-butyl	H	CF ₃
21-12	H	Cl	H	nonafluoro-2-butyl	H	CF ₃
21-13	H	Br	H	nonafluoro-2-butyl	H	CF ₃
21-14	H	I	H	nonafluoro-2-butyl	H	CF ₃
21-15	H	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
21-16	H	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
21-17	H	CF ₃	H	heptafluoroisopropyl	H	CF ₃
21-18	H	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
21-19	H	Br	H	heptafluoroisopropyl	H	C ₂ F ₅
21-20	H	Br	H	nonafluoro-2-butyl	H	C ₂ F ₅
21-21	Me	H	H	pentafluoroethyl	H	CF ₃
21-22	Me	H	H	heptafluoroisopropyl	H	CF ₃
21-23	Me	H	H	nonafluoro-2-butyl	H	CF ₃
21-24	Me	H	H	heptafluoroisopropyl	H	C ₂ F ₅
21-25	Me	H	H	nonafluoro-2-butyl	H	C ₂ F ₅
21-26	Me	Br	H	pentafluoroethyl	H	CF ₃
21-27	Me	F	H	heptafluoroisopropyl	H	CF ₃
21-28	Me	Cl	H	heptafluoroisopropyl	H	CF ₃
21-29	Me	Br	H	heptafluoroisopropyl	H	CF ₃
21-30	Me	I	H	heptafluoroisopropyl	H	CF ₃
21-31	Me	Br	H	nonafluoro-2-butyl	H	CF ₃
21-32	Me	I	H	nonafluoro-2-butyl	H	CF ₃
21-33	Me	OCF ₃	H	heptafluoroisopropyl	H	CF ₃
21-34	Et	OCF ₃	H	nonafluoro-2-butyl	H	CF ₃
21-35	Me	CF ₃	H	heptafluoroisopropyl	H	CF ₃
21-36	nPr	CF ₃	H	nonafluoro-2-butyl	H	CF ₃
21-37	Me	Br	H	heptafluoroisopropyl	H	C ₂ F ₅
21-38	Me	Br	H	nonafluoro-2-butyl	H	C ₂ F ₅

TABLE 21-continued

compound number						
	R ₂	Y _{1a}	Y _{2a}	Y _{3a}	Y _{4a}	Y _{5a}
21-39	Me	H	H	heptafluoroisopropyl	Cl	CF ₃
21-40	H	H	Et	nonafluoro-2-butyl	H	CF ₃
21-41	H	H	Br	heptafluoroisopropyl	I	CF ₃
21-42	H	H	Et	nonafluoro-2-butyl	Cl	CF ₃
21-43	H	H	Me	heptafluoroisopropyl	Me	CF ₃
21-44	H	Br	H	heptafluoroisopropyl	F	CF ₃
21-45	H	Br	Me	nonafluoro-2-butyl	H	CF ₃
21-46	H	Br	F	heptafluoroisopropyl	Cl	CF ₃
21-47	H	Br	Me	nonafluoro-2-butyl	F	CF ₃
21-48	H	Br	Et	heptafluoroisopropyl	Me	CF ₃
21-49	Me	I	H	heptafluoroisopropyl	F	CF ₃
21-50	Me	I	Me	nonafluoro-2-butyl	H	CF ₃
21-51	Me	I	F	heptafluoroisopropyl	Cl	CF ₃
21-52	iPr	I	Me	nonafluoro-2-butyl	F	CF ₃
21-53	Me	I	Et	heptafluoroisopropyl	Me	CF ₃

Hereinbelow, Table 10 shows the physical properties of the compound represented by the Formula (1) according to the present invention. Also, Table 22 shows the physical properties of the compounds represented by the Formula (6a), the Formula (6b), the Formula (6c), and the Formula (6d), which are intermediates of the compounds according to the present invention. The ¹H-NMR shift values shown therein are based on tetramethylsilane as an internal standard substance unless specified otherwise.

TABLE 10

compound number	¹ H-NMR(CDCl ₃ , ppm)
1-1	δ 2.28(6H, s), 2.71(2H, t, J = 6.8 Hz), 4.30(2H, t, J = 6.8 Hz), 5.43(1H, broad-s), 6.17(1H, broad-s), 7.17-7.37(9H, m), 7.66(1H, broad-s), 7.70-7.73(2H, m).
1-16	δ 2.30(6H, s), 2.74(2H, t, J = 6.8 Hz), 4.29(2H, t, J = 6.8 Hz), 5.52(1H, broad-s), 6.12(1H, broad-s), 7.08-7.11(1H, m), 7.34-7.37(4H, m), 7.52-7.54(1H, m), 7.74-7.75(1H, m), 7.80(1H, broad-s), 7.84(1H, broad-s), 8.23-8.25(1H, m).
1-21	δ 2.26(6H, s), 2.60(1H, broad-s), 2.75(1H, broad-s), 4.22-4.23(2H, m), 5.45(1H, broad-s), 6.03(1H, broad-s), 7.19-7.34(8H, m), 7.49-7.52(2H, m), 7.90-7.96(1H, m).
1-36	δ 2.33(6H, s), 2.64-2.80(2H, m), 4.11-4.13(1H, m), 4.30-4.40(1H, m), 5.40(1H, broad-s), 5.95(1H, broad-s), 7.11-7.14(1H, m), 7.21(1H, t, J = 8.3 Hz), 7.37(2H, s), 7.50-7.62(2H, m), 7.79(1H, d, J = 10.2 Hz), 7.93-7.95(1H, m), 8.29(1H, dd, J = 2.0, 4.8 Hz).
1-62	(DMSO-d ₆) δ 2.46-2.51(2H, m), 4.08(2H, broad-s), 6.90(1H, s), 7.45-7.50(5H, m), 7.74-7.82(4H, m), 8.14(2H, s), 10.56(1H, s).
1-63	δ 2.70(2H, m), 4.31(2H, t, J = 6.8 Hz), 5.78(1H, broad-s), 6.86(1H, broad-s), 7.34-7.51(6H, m), 7.68(1H, s), 7.81-7.82(1H, m), 8.12(2H, s), 10.04(1H, s).
1-64	δ 2.72(2H, t, J = 6.8 Hz), 4.33(2H, t, J = 6.8 Hz), 5.35(1H, broad-s), 5.85(1H, broad-s), 7.23-7.26(1H, m), 7.39-7.43(3H, m), 7.51-7.53(2H, m), 7.69-7.74(2H, m), 7.90(2H, d, J = 7.8 Hz), 8.14(1H, s).
1-65	(DMSO-d ₆) δ 2.47-2.48(2H, m), 4.08-4.09(2H, m), 6.90(1H, s), 7.45-7.58(6H, m), 7.65-7.79(3H, m), 7.95(1H, s), 8.51(1H, s), 10.57(1H, s).
1-82	(CDCl ₃ + DMSO-d ₆) δ 2.68(2H, t, J = 6.8 Hz), 4.30(2H, t, J = 6.8 Hz), 5.69(1H, broad-s), 6.73(1H, broad-s), 7.27-7.29(1H, m), 7.35-7.42(3H, m), 7.48-7.50(2H, m), 7.75(1H, s), 7.84-7.86(1H, m), 7.86(1H, s), 8.12(1H, s), 9.75(1H, s).
1-95	(DMSO-d ₆) δ 2.44-2.51(2H, m), 4.02-4.09(2H, m), 6.89(1H, s), 7.22-7.28(5H, m), 7.41-7.48(3H, m), 7.78(2H, s), 8.13(2H, s), 10.57(1H, s).
1-96	(DMSO-d ₆) δ 2.46-2.51(2H, m), 4.04-4.08(2H, m), 6.91(1H, s), 7.46-7.54(5H, m), 7.56-7.83(4H, m), 8.14(2H, s), 10.55(1H, s).
1-97	(DMSO-d ₆) δ 2.49-2.51(2H, m), 4.09-4.13(2H, m), 6.93(1H, s), 7.31-7.34(1H, m), 7.46-7.50(2H, m), 7.55-7.57(1H, m), 7.79-7.90(3H, m), 8.15(2H, s), 8.26(1H, s), 10.57(1H, s).
1-99	δ 2.72(2H, t, J = 6.8 Hz), 4.33(2H, t, J = 6.8 Hz), 5.38(1H, broad-s), 6.07(1H, broad-s), 7.18-7.31(6H, m), 7.38(1H, t, J = 7.8 Hz), 7.64(1H, d, J = 2.0 Hz), 7.70(1H, d, J = 7.8 Hz), 7.90(1H, s), 7.98(1H, s), 8.12(1H, s).
1-100	δ 2.71(2H, t, J = 6.8 Hz), 4.32(2H, t, J = 6.8 Hz), 5.44(1H, broad-s), 5.80(1H, broad-s), 7.23-7.34(2H, m), 7.42-7.48(2H, m), 7.57(1H, broad-d, J = 7.8 Hz), 7.67-7.69(2H, m), 7.75(1H, d, J = 7.8 Hz), 7.91(1H, s), 8.04(1H, s), 8.13(1H, s).
1-101	δ 2.77(2H, t, J = 6.8 Hz), 4.32(2H, t, J = 6.8 Hz), 5.44(1H, broad-s), 6.00(1H, broad-s), 7.12(1H, dd, J = 4.9, 7.8 Hz), 7.40-7.42(2H, m), 7.52-7.55(1H, m), 7.73(1H, d, J = 6.8 Hz), 7.77(1H, s), 7.91(1H, s), 8.07(1H, s), 8.14(1H, s), 8.26(1H, dd, J = 2.0, 4.9 Hz).
1-103	(DMSO-d ₆) δ 2.44-2.54(2H, m), 4.05-4.09(2H, m), 6.89(1H, s), 7.23-7.29(5H, m), 7.44-7.48(3H, m), 7.70-7.75(2H, m), 7.95(1H, s), 8.51(1H, s), 10.59(1H, s).
1-104	(DMSO-d ₆) δ 2.35-2.38(2H, m), 4.04-4.08(2H, m), 6.80-6.91(1H, m), 7.14-7.25(2H, m), 7.46-7.58(4H, m), 7.70-7.78(3H, m), 7.95(1H, s), 8.51(1H, s), 10.58(1H, s).
1-105	δ 2.76(2H, t, J = 6.8 Hz), 4.31(2H, t, J = 6.8 Hz), 5.48(1H, broad-s), 6.06(1H, broad-s), 7.11(1H, dd, J = 4.9, 7.8 Hz), 7.40-7.42(2H, m), 7.53(1H, dd, J = 2.0, 7.8 Hz), 7.74(1H, d, J = 6.3 Hz), 7.78(1H, s), 7.93(1H, s), 8.19(1H, broad-s), 8.24(1H, dd, J = 2.0, 4.9 Hz), 8.34(1H, s).
1-115	δ 2.73(2H, t, J = 6.3 Hz), 4.34(2H, t, J = 6.3 Hz), 5.62(1H, broad-s), 6.14(1H, broad-s), 7.18-7.36(4H, m), 7.36-7.40(1H, m), 7.43-7.47(1H, m), 7.64(1H, s), 7.69-7.71(1H, m), 7.88(1H, s), 7.92(1H, s), 8.05-8.07(1H, m), 8.10-8.11(1H, m).
1-116	δ 2.68(2H, t, J = 6.8 Hz), 4.28(2H, t, J = 6.8 Hz), 5.63(1H, broad-s), 6.14(1H, broad-s), 7.27-7.31(2H, m), 7.40-7.45(2H, m), 7.55(1H, d, J = 7.8 Hz), 7.65(1H, s), 7.69(1H, s), 7.76(1H, d, J = 7.8 Hz), 7.88(1H, s), 8.11(1H, s), 8.41(1H, s).
1-117	δ 2.74(2H, t, J = 6.8 Hz), 4.29(2H, t, J = 6.8 Hz), 5.51(1H, broad-s), 6.08(1H, broad-s), 7.11(1H, dd, J = 4.9, 7.8 Hz), 7.36-7.43(2H, m), 7.53(1H, dd, J = 2.0, 7.8 Hz), 7.73(1H, d, J = 7.8 Hz), 7.78(1H, s), 7.89(1H, s), 8.09-8.11(2H, m), 8.24(1H, dd, J = 2.0, 4.9 Hz).
1-118	δ 2.70-2.71(2H, m), 4.28-4.29(2H, m), 5.48(1H, broad-s), 6.20(1H, broad-s), 6.82-6.83(1H, m), 7.00-7.04(1H, m), 7.23-7.24(1H, m), 7.29-7.37(3H, m), 7.67(1H, s), 7.72-7.73(1H, m), 7.88(1H, s), 8.06(1H, s), 8.10(1H, s).
1-132	δ 2.69-2.70(1H, m), 2.81-2.82(1H, m), 4.22-4.24(2H, m), 5.38(1H, broad-s), 5.78(1H, broad-s), 7.30-7.32(1H, m), 7.42-7.44(2H, m), 7.51-7.55(3H, m), 7.66(2H, s), 7.90-7.93(1H, m), 8.00-8.01(1H, m).
1-133	δ 2.68-2.71(1H, m), 2.81-2.84(1H, m), 4.23-4.26(2H, m), 5.37(1H, broad-s), 5.77(1H, broad-s), 7.32(1H, t, J = 7.8 Hz), 7.43-7.58(5H, m), 7.87(2H, s), 7.87-7.90(1H, m), 8.00-8.03(1H, m).
1-134	δ 2.63-2.89(2H, m), 4.21-4.25(2H, m), 5.50(1H, broad-s), 5.91(1H, broad-s), 7.26-7.61(6H, m), 8.02-8.09(4H, m).
1-136	δ 2.71(1H, broad-s), 2.85(1H, broad-s), 4.24(2H, broad-t, J = 6.3 Hz), 5.39(1H, broad-s), 5.80(1H, broad-s), 7.32(1H, t, J = 7.8 Hz), 7.42(2H, d, J = 7.8 Hz), 7.52(2H, broad-d, J = 7.8 Hz), 7.58-7.59(1H, m), 7.91(1H, s), 7.98-8.08(2H, m), 8.13(1H, s).
1-137	δ 2.65-2.71(1H, m), 2.83-2.89(1H, m), 4.25(2H, broad-t, J = 6.3 Hz), 5.38(1H, broad-s), 5.76(1H, broad-s), 7.34(1H, t, J = 7.8 Hz), 7.43(2H, broad-d, J = 7.8 Hz), 7.51-7.53(2H, m), 7.60-7.63(1H, m), 7.93(1H, s), 8.02(2H, broad-t, J = 7.8 Hz), 8.34(1H, s).
1-138	δ 2.66-2.70(1H, m), 2.83-2.86(1H, m), 4.23(2H, broad-s), 5.38(1H, broad-s), 5.79(1H, broad-s), 7.31(1H, t, J = 7.8 Hz), 7.42-7.44(2H, m), 7.50-7.59(4H, m), 7.87-7.91(2H, m), 7.98(1H, t, J = 6.8 Hz).
1-139	δ 2.69-2.84(2H, m), 4.22-4.26(2H, m), 5.45(1H, broad-s), 5.90(1H, broad-s), 7.32(1H, t, J = 7.8 Hz), 7.43-7.45(2H, m), 7.51-7.52(2H, m), 7.58-7.59(1H, m), 7.86-8.04(2H, m), 7.89(1H, broad-s), 8.06(1H, d, J = 1.5 Hz).
1-151	δ 2.65-2.69(1H, m), 2.80-2.83(1H, m), 4.20-4.25(2H, m), 5.42(1H, s), 5.80(1H, s), 7.31-7.32(1H, m), 7.43-7.58(5H, m), 7.85-7.92(3H, m), 8.01-8.03(1H, m).
1-152	δ 2.60-2.75(1H, m), 2.75-2.90(1H, m), 4.24-4.25(2H, m), 5.46(1H, broad-s), 5.90(1H, broad-s), 7.33-7.34(1H, m), 7.44(2H, d, J = 7.8 Hz), 7.52(2H, d, J = 7.8 Hz), 7.58-7.59(1H, m), 7.97-8.08(4H, m).

TABLE 10-continued

compound number	¹ H-NMR(CDCl ₃ , ppm)
1-154	δ 2.67-2.68 (1H, m), 2.83-2.84 (1H, m), 4.23 (2H, t, J = 6.3 Hz), 5.44 (1H, broad-s), 5.83 (1H, broad-s), 7.32 (1H, t, J = 7.8 Hz), 7.41 (2H, d, J = 7.8 Hz), 7.52 (2H, d, J = 7.8 Hz), 7.57-7.61 (1H, m), 7.89 (1H, s), 7.98-8.04 (2H, m), 8.12 (1H, s).
1-163	δ 2.68 (1H, broad-s), 2.83 (1H, broad-s), 4.24 (2H, t, J = 6.8 Hz), 5.42 (1H, broad-s), 6.02 (1H, broad-s), 7.18-7.22 (2H, m), 7.26-7.34 (4H, m), 7.55-7.56 (1H, m), 7.85 (2H, s), 7.94-8.00 (2H, m).
1-164	δ 2.70 (1H, broad-s), 2.80 (1H, broad-s), 4.23 (2H, t, J = 6.8 Hz), 5.45 (1H, broad-s), 5.80 (1H, broad-s), 7.29-7.36 (2H, m), 7.47 (1H, m), 7.58-7.62 (2H, m), 7.72 (1H, broad-s), 7.86 (2H, s), 7.95-8.05 (2H, m).
1-167	δ 2.64-2.68 (2H, m), 4.22-4.25 (2H, m), 5.44 (1H, broad-s), 6.06 (1H, broad-s), 7.17-7.35 (6H, m), 7.56-7.60 (1H, m), 7.96-8.07 (4H, m).
1-168	δ 2.70-2.71 (1H, m), 2.83-2.84 (1H, m), 4.23 (2H, t, J = 6.8 Hz), 5.43 (1H, broad-s), 5.89 (1H, broad-s), 7.29-7.36 (2H, m), 7.50 (1H, d, J = 7.8 Hz), 7.56-7.60 (2H, m), 7.70 (1H, s), 8.03-8.08 (4H, m).
1-169	δ 2.77-2.78 (1H, m), 2.83-2.84 (1H, m), 4.20-4.21 (1H, m), 4.31-4.32 (1H, m), 5.40 (1H, broad-s), 5.90 (1H, broad-s), 7.10-7.13 (1H, m), 7.61-7.63 (2H, m), 8.00-8.01 (1H, m), 8.10-8.17 (4H, m), 8.27 (1H, dd, J = 2.0, 4.8 Hz).
1-171	δ 2.55-2.80 (2H, m), 4.22-4.26 (2H, m), 5.45 (1H, broad-s), 6.00 (1H, broad-s), 7.21-7.30 (6H, m), 7.52-7.57 (1H, m), 7.89-8.12 (4H, m).
1-172	δ 2.66-2.70 (1H, m), 2.81-2.85 (1H, m), 4.21-4.25 (2H, m), 5.46 (1H, broad-s), 5.83 (1H, broad-s), 7.30-7.37 (2H, m), 7.47 (1H, broad-d, J = 7.3 Hz), 7.58-7.65 (2H, m), 7.70 (1H, s), 7.90 (1H, s), 7.99-8.06 (2H, m), 8.13 (1H, s).
1-173	δ 2.74-2.78 (1H, m), 2.81-2.84 (1H, m), 4.13-4.18 (1H, m), 4.31-4.33 (1H, m), 5.44 (1H, broad-s), 5.90 (1H, broad-s), 7.14 (1H, dd, J = 4.9, 7.3 Hz), 7.24 (1H, t, J = 7.8 Hz), 7.63-7.65 (2H, m), 7.92 (1H, s), 7.95-7.99 (1H, m), 8.14-8.17 (2H, m), 8.29 (1H, dd, J = 2.0, 4.9 Hz).
1-175	δ 2.67-2.68 (1H, m), 2.81-2.82 (1H, m), 4.21-4.23 (2H, m), 5.75-5.76 (1H, m), 6.21-6.22 (1H, m), 7.19-7.21 (2H, m), 7.27-7.31 (4H, m), 7.54 (1H, t, J = 6.8 Hz), 7.91-7.96 (2H, m), 8.17-8.18 (1H, m), 8.31-8.32 (1H, m).
1-176	δ 2.63-2.64 (1H, m), 2.86-2.87 (1H, m), 4.24-4.25 (2H, m), 5.40 (1H, broad-s), 5.81 (1H, broad-s), 7.30-7.37 (2H, m), 7.58-7.69 (4H, m), 7.93 (1H, s), 8.00-8.09 (2H, m), 8.33 (1H, s).
1-177	δ 2.75-2.86 (2H, m), 4.14-4.21 (1H, m), 4.28-4.35 (1H, m), 5.49 (1H, broad-s), 5.95 (1H, broad-s), 7.13 (1H, dd, J = 4.9, 7.8 Hz), 7.22-7.24 (1H, m), 7.63-7.65 (2H, m), 7.49-7.99 (2H, m), 8.27-8.29 (2H, m), 8.35 (1H, s).
1-179	δ 2.60-2.74 (1H, m), 2.74-2.90 (1H, m), 4.22-4.25 (2H, m), 5.42 (1H, broad-s), 6.03 (1H, broad-s), 7.15-7.34 (6H, m), 7.53-7.57 (1H, m), 7.83 (2H, s), 7.94-8.01 (2H, m).
1-180	δ 2.34-2.70 (1H, m), 2.78-2.89 (1H, m), 4.21-4.25 (2H, m), 5.60 (1H, s), 5.88 (1H, s), 7.27-7.35 (2H, m), 7.48-7.61 (3H, m), 7.72 (1H, s), 7.85 (2H, s), 7.91-8.10 (2H, m).
1-183	δ 2.60-2.75 (1H, m), 2.75-2.90 (1H, m), 4.20-4.24 (2H, m), 5.43 (1H, broad-s), 5.86 (1H, broad-s), 7.26-7.36 (3H, m), 7.50-7.62 (3H, m), 7.71 (1H, s), 8.01-8.08 (4H, m).
1-184	δ 2.60-2.75 (1H, m), 2.75-2.90 (1H, m), 4.24 (2H, t, J = 6.8 Hz), 5.44 (1H, broad-s), 5.86 (1H, broad-s), 7.30-7.36 (2H, m), 7.51 (1H, d, J = 7.8 Hz), 7.56-7.62 (2H, m), 7.71 (1H, s), 8.01-8.08 (4H, m).
1-185	δ 2.77-2.78 (1H, m), 2.84-2.85 (1H, m), 4.20-4.21 (1H, m), 4.31-4.32 (1H, m), 5.40 (1H, broad-s), 5.90 (1H, broad-s), 7.10-7.13 (1H, m), 7.23-7.25 (1H, m), 7.61-7.63 (2H, m), 8.01-8.02 (1H, m), 8.09 (2H, s), 8.11-8.14 (1H, m), 8.27 (1H, dd, J = 2.0, 4.9 Hz).
1-187	δ 2.63-2.64 (1H, m), 2.68-2.69 (1H, m), 4.23 (2H, t, J = 6.8 Hz), 5.39 (1H, broad-s), 6.99 (1H, broad-s), 7.18-7.23 (2H, m), 7.28-7.32 (4H, m), 7.52-7.57 (1H, m), 7.87 (1H, s), 7.94-8.02 (2H, m), 8.10 (1H, s).
1-188	δ 2.66-2.68 (1H, m), 2.83-2.84 (1H, m), 4.22-4.23 (2H, m), 5.46 (1H, broad-s), 5.84 (1H, broad-s), 7.29-7.36 (2H, m), 7.47 (1H, d, J = 7.3 Hz), 7.58-7.65 (2H, m), 7.70 (1H, s), 7.88 (1H, s), 7.99-8.06 (2H, m), 8.11 (1H, s).
1-195	δ 2.64 (2H, t, J = 6.8 Hz), 4.30 (2H, t, J = 6.8 Hz), 5.44 (1H, broad-s), 5.91 (1H, broad-s), 7.20 (1H, d, J = 8.3 Hz), 7.29-7.30 (1H, m), 7.45 (1H, t, J = 7.8 Hz), 7.60 (1H, dd, J = 2.4, 8.3 Hz), 7.73-7.78 (2H, m), 7.91 (1H, s), 8.08 (1H, s), 8.13 (1H, s), 8.27 (1H, d, J = 2.4 Hz).
1-196	δ 2.65-2.68 (1H, m), 2.83-2.84 (1H, m), 4.20-4.27 (2H, m), 5.38 (1H, s), 5.78 (1H, s), 7.21 (1H, d, J = 8.8 Hz), 7.37 (1H, t, J = 7.8 Hz), 7.61-7.65 (2H, m), 7.90 (1H, s), 8.01-8.04 (2H, m), 8.13 (1H, s), 8.32 (1H, broad-s).
1-197	δ 2.65-2.68 (1H, m), 2.80-2.84 (1H, m), 4.21-4.24 (2H, m), 5.42 (1H, broad-s), 5.79 (1H, broad-s), 7.20 (1H, d, J = 8.3 Hz), 7.36 (1H, t, J = 7.8 Hz), 7.60-7.64 (2H, m), 7.86 (2H, s), 7.88-7.93 (1H, m), 8.06 (1H, t, J = 6.8 Hz), 8.35 (1H, s).
1-198	δ 2.67-2.69 (1H, m), 2.84-2.85 (1H, m), 4.22-4.23 (2H, m), 5.45 (1H, broad-s), 5.69 (1H, broad-s), 7.42 (1H, t, J = 7.8 Hz), 7.71-7.74 (1H, m), 7.81-7.85 (3H, m), 7.90 (1H, s), 8.00-8.08 (2H, m), 8.13 (1H, s).
1-199	δ 2.64-2.65 (1H, m), 2.80-2.81 (1H, m), 4.20-4.24 (2H, m), 5.47 (1H, broad-s), 5.70 (1H, broad-s), 7.39 (1H, t, J = 7.8 Hz), 7.67 (1H, t, J = 7.8 Hz), 7.83-7.87 (5H, m), 7.96-7.99 (1H, m), 8.06-8.10 (1H, m).
1-200	δ 2.69-2.70 (1H, m), 2.83-2.84 (1H, m), 4.23-4.24 (2H, m), 5.41 (1H, broad-s), 5.89 (1H, broad-s), 7.17-7.22 (1H, m), 7.32 (1H, t, J = 7.8 Hz), 7.58 (1H, t, J = 7.3 Hz), 7.63-7.65 (1H, m), 7.85 (2H, s), 7.99-8.03 (2H, m), 8.51-8.58 (2H, m).
1-201	δ 2.69-2.70 (1H, m), 2.83-2.84 (1H, m), 4.24-4.25 (2H, m), 5.39 (1H, broad-s), 5.81 (1H, broad-s), 7.19-7.20 (2H, m), 7.31 (1H, t, J = 7.8 Hz), 7.56 (1H, t, J = 7.3 Hz), 7.85 (2H, s), 7.93-7.96 (1H, m), 8.03-8.04 (1H, m), 8.52-8.53 (2H, m).
1-202	δ 2.63-2.69 (1H, m), 2.84 (1H, t, J = 8.3 Hz), 4.20-4.25 (2H, m), 5.40-5.41 (1H, broad-s), 5.75-5.76 (1H, broad-s), 7.00-7.01 (1H, m), 7.31-7.36 (2H, m), 7.56-7.61 (1H, m), 7.86 (2H, s), 7.96-7.99 (1H, m), 8.07 (1H, t, J = 7.3 Hz), 8.24-8.25 (1H, m).
1-203	δ 2.74-2.83 (2H, m), 4.24-4.31 (2H, m), 5.45 (1H, broad-s), 5.90 (1H, broad-s), 7.24-7.26 (1H, m), 7.44-7.45 (1H, m), 7.86 (2H, s), 8.04-8.10 (2H, m), 8.18 (1H, s), 8.49 (1H, d, J = 2.4 Hz), 9.01 (1H, d, J = 1.0 Hz).
1-204	δ 2.66-2.70 (1H, m), 2.83-2.87 (1H, m), 4.24 (2H, broad-s), 5.46 (1H, broad-s), 5.76 (1H, broad-s), 7.38 (1H, t, J = 7.8 Hz), 7.64-7.65 (1H, m), 7.86 (2H, s), 7.94 (1H, d, J = 11.7 Hz), 8.07 (1H, broad-t, J = 7.8 Hz), 8.69 (2H, broad-s), 9.11 (1H, s).
1-205	δ 2.69-2.70 (1H, m), 2.82-2.83 (1H, m), 4.22 (2H, t, J = 6.3 Hz), 5.41 (1H, broad-s), 5.80 (1H, broad-s), 7.29-7.35 (2H, m), 7.47-7.48 (1H, m), 7.57-7.60 (2H, m), 7.66 (2H, s), 7.72 (1H, s), 7.94-7.97 (1H, m), 8.02 (1H, t, J = 6.8 Hz).

TABLE 10-continued

compound number	¹ H-NMR(CDCl ₃ , ppm)
1-206	δ 2.69 (1H, broad-s), 2.75 (1H, broad-s), 4.23 (2H, t, J = 6.8 Hz), 5.43 (1H, broad-s), 6.05 (1H, broad-s), 7.18-7.33 (6H, m), 7.49-7.54 (1H, m), 7.65 (2H, s), 7.95-7.98 (2H, m).
1-207	δ 2.74-2.83 (2H, m), 4.10-4.15 (1H, m), 4.30-4.35 (1H, m), 5.47 (1H, broad-s), 5.91 (1H, broad-s), 7.12-7.15 (1H, m), 7.21-7.25 (1H, m), 7.59-7.63 (2H, m), 7.68 (2H, s), 7.95-7.99 (1H, m), 8.07 (1H, d, J = 11.8 Hz), 8.28 (1H, dd, J = 2.0, 4.8 Hz).
1-208	δ 2.66-2.70 (1H, m), 2.84-2.85 (1H, m), 4.25-4.26 (2H, m), 5.38 (1H, broad-s), 5.69 (1H, broad-s), 7.36 (1H, t, J = 7.8 Hz), 7.54-7.64 (2H, m), 7.64 (1H, d, J = 6.3 Hz), 7.86-7.87 (3H, m), 8.05-8.06 (1H, m), 8.66 (1H, s).
1-209	δ 2.65-2.85 (2H, m), 4.22 (2H, t, J = 6.8 Hz), 5.42 (1H, broad-s), 5.95 (1H, broad-s), 6.87-6.92 (2H, m), 7.29-7.37 (3H, m), 7.54-7.58 (1H, m), 7.85 (2H, s), 7.92 (1H, d, J = 12.7 Hz), 8.01 (1H, t, J = 7.8 Hz).
1-210	δ 2.75-3.03 (2H, m), 4.11-4.30 (2H, m), 5.40 (1H, broad-s), 5.90 (1H, broad-s), 6.70-6.80 (2H, m), 7.19-7.24 (2H, m), 7.50-7.52 (1H, m), 7.87 (2H, s), 8.00-8.05 (1H, m), 8.11 (1H, d, J = 13.7 Hz).
1-211	δ 2.76-2.94 (2H, m), 4.10-4.15 (1H, m), 4.31-4.35 (1H, m), 5.43 (1H, broad-s), 5.88 (1H, broad-s), 7.12 (1H, dd, J = 4.9, 7.8 Hz), 7.22-7.26 (1H, m), 7.62 (2H, broad-d, J = 7.3 Hz), 7.90 (1H, s), 8.01-8.06 (2H, m), 8.08 (1H, s), 8.28 (1H, dd, J = 2.0, 4.9 Hz).
1-212	δ 2.70 (1H, broad-s), 2.80 (1H, broad-s), 4.22-4.25 (2H, m), 5.43 (1H, broad-s), 6.05 (1H, broad-s), 7.17-7.23 (2H, m), 7.28-7.34 (4H, m), 7.55-7.59 (1H, m), 7.85-8.02 (2H, m), 7.87 (1H, s), 8.04 (1H, s).
1-213	δ 2.60-2.90 (2H, m), 4.20-4.25 (2H, m), 5.62 (1H, s), 5.90 (1H, s), 7.20 (1H, d, J = 8.3 Hz), 7.36-7.37 (1H, m), 7.59-7.63 (2H, m), 7.85 (2H, s), 8.00-8.05 (2H, m), 8.36 (1H, s).
1-214	δ 2.52 (6H, s), 2.70-2.90 (2H, m), 4.22-4.24 (2H, m), 5.45 (1H, broad-s), 6.10 (1H, broad-s), 7.18-7.32 (8H, m), 7.49-7.50 (1H, m), 7.60-7.70 (1H, m), 7.92-7.96 (1H, m).
1-215	δ 2.28 (6H, s), 2.64-2.79 (2H, m), 4.23-4.24 (2H, m), 5.43 (1H, broad-s), 5.85 (1H, broad-s), 7.27-7.31 (4H, m), 7.34-7.53 (4H, m), 7.65 (1H, d, J = 10.2 Hz), 7.97-7.98 (1H, m).
1-216	δ 2.27 (6H, s), 2.60-2.80 (2H, m), 4.21-4.24 (2H, m), 5.43 (1H, broad-s), 5.85 (1H, broad-s), 7.29-7.34 (4H, m), 7.47-7.55 (2H, m), 7.59 (1H, d, J = 7.8 Hz), 7.70-7.72 (2H, m), 7.90-8.00 (1H, m).
1-217	δ 2.69 (2H, t, J = 7.3 Hz), 4.29 (2H, t, J = 7.3 Hz), 5.85 (1H, broad-s), 7.00 (1H, broad-s), 7.17-7.38 (8H, m), 7.71-7.76 (2H, m), 8.16 (1H, s), 10.08 (1H, s).
1-218	δ 2.74 (2H, t, J = 6.8 Hz), 4.30 (2H, t, J = 6.8 Hz), 5.47 (1H, broad-s), 6.06 (1H, broad-s), 7.10-7.13 (1H, m), 7.38-7.43 (2H, m), 7.53-7.55 (1H, m), 7.69-7.73 (2H, m), 8.18-8.20 (3H, m), 8.24-8.26 (1H, m).
1-219	δ 2.70 (2H, t, J = 6.8 Hz), 4.33 (2H, t, J = 6.8 Hz), 5.37 (1H, broad-s), 5.79 (1H, broad-s), 7.22-7.33 (2H, m), 7.42-7.46 (2H, m), 7.52-7.71 (4H, m), 7.92 (1H, s), 8.18 (2H, s).
1-220	δ 2.28 (6H, s), 2.60-2.75 (1H, m), 2.75-2.90 (1H, m), 4.21-4.24 (2H, m), 5.43 (1H, broad-s), 5.86 (1H, broad-s), 7.20-7.23 (1H, m), 7.30-7.34 (3H, m), 7.51-7.52 (1H, m), 7.61-7.63 (1H, m), 7.68-7.71 (1H, m), 7.98-8.01 (1H, m), 8.35 (1H, s).
1-221	δ 2.66-2.68 (1H, m), 2.83-2.84 (1H, m), 4.19-4.20 (1H, m), 4.26-4.28 (1H, m), 5.49 (1H, broad-s), 5.88 (1H, broad-s), 7.20 (1H, d, J = 7.8 Hz), 7.37 (1H, t, J = 7.8 Hz), 7.60-7.66 (2H, m), 7.92 (1H, s), 8.03 (1H, t, J = 6.8 Hz), 8.12-8.13 (1H, m), 8.32-8.33 (2H, m).
1-222	δ 2.66-2.68 (1H, m), 2.84-2.86 (1H, m), 4.18-4.21 (1H, m), 4.28-4.30 (1H, m), 5.52 (1H, broad-s), 5.91 (1H, broad-s), 7.18 (1H, d, J = 8.3 Hz), 7.38 (1H, t, J = 8.3 Hz), 7.58-7.60 (1H, m), 7.64-7.68 (1H, m), 8.00-8.09 (4H, m), 8.37 (1H, s).
1-223	δ 2.67-2.68 (1H, m), 2.82-2.83 (1H, m), 4.21-4.22 (2H, m), 5.44 (1H, broad-s), 5.99 (1H, broad-s), 6.87-6.91 (2H, m), 7.29-7.35 (3H, m), 7.58 (1H, t, J = 7.3 Hz), 7.29 (1H, s), 7.97-8.01 (1H, m), 8.12-8.13 (1H, m), 8.32 (1H, s).
1-224	δ 2.70-2.71 (1H, m), 2.84-2.85 (1H, m), 4.20-4.21 (1H, m), 4.26-4.27 (1H, m), 5.49 (1H, broad-s), 5.72 (1H, broad-s), 7.39 (1H, t, J = 7.8 Hz), 7.65 (1H, t, J = 7.8 Hz), 7.83-7.84 (3H, m), 7.98-8.01 (1H, m), 8.08-8.13 (3H, m).
1-225	δ 2.68-2.67 (1H, m), 2.85-2.86 (1H, m), 4.19-4.20 (1H, m), 4.28-4.29 (1H, m), 5.42 (1H, broad-s), 5.85 (1H, broad-s), 7.18 (1H, d, J = 8.3 Hz), 7.38 (1H, t, J = 7.8 Hz), 7.59 (1H, d, J = 7.8 Hz), 7.66 (1H, t, J = 7.8 Hz), 7.69-7.99 (1H, m), 8.07-8.10 (3H, m), 8.37 (1H, s).
1-226	δ 2.70 (2H, t, J = 6.8 Hz), 4.31 (2H, t, J = 6.8 Hz), 5.40 (1H, broad-s), 6.05 (1H, broad-s), 6.97-7.07 (3H, m), 7.14-7.16 (1H, m), 7.30-7.32 (1H, m), 7.41 (1H, t, J = 7.8 Hz), 7.66 (1H, d, J = 2.0 Hz), 7.74 (1H, d, J = 7.8 Hz), 7.92 (1H, s), 8.12 (1H, s), 8.33 (1H, s).
1-227	δ 2.75 (1H, t, J = 6.8 Hz), 2.82 (1H, t, J = 6.8 Hz), 4.22-4.27 (2H, m), 5.54 (1H, broad-s), 6.07 (1H, broad-s), 6.69-6.70 (1H, m), 6.78-6.79 (1H, m), 7.18-7.24 (2H, m), 7.51 (1H, t, J = 7.8 Hz), 7.91 (1H, s), 7.99 (1H, t, J = 6.8 Hz), 8.13 (1H, s), 8.28 (1H, d, J = 13.1 Hz).
1-228	δ 1.07 (3H, d, J = 6.3 Hz), 1.85 (3H, s), 2.45 (1H, m), 2.52-2.55 (1H, m), 2.64 (2H, t, J = 6.8 Hz), 2.92 (1H, dd, J = 2.9, 14.1 Hz), 3.59 (3H, s), 4.22 (2H, t, J = 6.8 Hz), 5.79 (1H, broad-s), 6.46 (1H, broad-s), 7.12-7.19 (3H, m), 7.27-7.32 (4H, m), 7.76 (1H, d, J = 7.8 Hz), 7.80 (1H, s), 8.85 (1H, s).
1-229	δ 1.08 (3H, d, J = 6.3 Hz), 1.87 (3H, s), 2.46-2.47 (1H, m), 2.49-2.50 (1H, m), 2.69 (2H, t, J = 6.8 Hz), 2.89-2.90 (1H, m), 3.61 (3H, s), 4.21 (2H, t, J = 6.8 Hz), 5.38 (1H, broad-s), 6.34 (1H, broad-s), 7.08 (1H, dd, J = 4.9, 7.3 Hz), 7.32-7.34 (2H, m), 7.50 (1H, dd, J = 2.0, 7.8 Hz), 7.77 (1H, d, J = 6.3 Hz), 7.87 (1H, s), 8.23 (1H, dd, J = 2.0, 4.9 Hz), 8.71 (1H, s).
1-230	δ 1.08 (3H, d, J = 6.3 Hz), 1.88 (3H, s), 2.44-2.47 (1H, m), 2.50-2.51 (1H, m), 2.71 (2H, t, J = 6.8 Hz), 2.92 (1H, dd, J = 2.9, 13.7 Hz), 3.63 (3H, s), 4.20 (2H, t, J = 6.8 Hz), 5.72 (1H, broad-s), 6.26 (1H, broad-s), 6.71 (2H, t, J = 7.8 Hz), 7.15-7.19 (1H, m), 7.32-7.38 (2H, m), 7.80-7.83 (2H, m), 8.70 (1H, s).
1-231	DMSO-d ₆ δ 2.44-2.51 (2H, m), 4.00-4.09 (2H, m), 6.90 (1H, s), 7.07-7.15 (3H, m), 7.25-7.29 (1H, m), 7.45-7.52 (3H, m), 7.78-7.82 (2H, m), 8.14 (2H, s), 10.57 (1H, s).
1-232	DMSO-d ₆ δ 2.47-2.51 (2H, m), 4.07-4.12 (2H, m), 6.92-6.99 (3H, m), 7.29-7.36 (1H, m), 7.48-7.53 (3H, m), 7.76 (1H, s), 7.84 (1H, d, J = 7.3 Hz), 8.14 (2H, s), 10.60 (1H, s).
1-233	DMSO-d ₆ δ 2.44-2.51 (2H, m), 4.04-4.10 (2H, m), 6.91 (1H, s), 7.45-7.54 (4H, m), 7.74-7.85 (3H, m), 8.14 (2H, s), 8.27 (1H, broad-s), 10.60 (1H, s).
1-234	δ 2.69 (2H, t, J = 6.8 Hz), 4.29 (2H, t, J = 6.8 Hz), 5.46 (1H, broad-s), 5.91 (1H, broad-s), 7.18-7.21 (1H, m), 7.30-7.32 (1H, m), 7.44 (1H, t, J = 7.8 Hz), 7.60 (1H, dd, J = 2.4, 8.3 Hz), 7.72-7.73 (1H, m), 7.76 (1H, d, J = 8.3 Hz), 7.89 (1H, s), 8.02 (1H, s), 8.12 (1H, s), 8.26 (1H, d, J = 2.0 Hz).
1-235	δ 2.69-2.70 (1H, m), 2.84-2.85 (1H, m), 4.22-4.26 (2H, m), 5.38 (1H, broad-s), 5.85 (1H, broad-s), 7.17-7.18 (1H, m), 7.34 (1H, t, J = 7.8 Hz), 7.61-7.65 (2H, m), 7.91 (1H, s), 7.98-8.01 (2H, m), 8.32 (1H, s), 8.52 (1H, s), 8.56 (1H, s).

TABLE 10-continued

compound number	¹ H-NMR(CDCl ₃ , ppm)
1-236	δ 2.75 (2H, m), 4.32 (2H, m), 5.40 (1H, m), 6.00 (1H, m), 6.83 (1H, m), 6.95-6.97 (1H, d, J = 8.4 Hz), 7.18-7.26 (1H, m), 7.38-7.40 (2H, d, J = 8.8 Hz), 7.94 (2H, m), 7.97 (2H, m), 8.35 (1H, m).
1-237	δ 2.69 (2H, t, J = 6.3 Hz), 4.29 (2H, t, J = 6.3 Hz), 5.05 (1H, broad-s), 6.21 (1H, broad-s), 7.16-7.21 (3H, m), 7.28-7.33 (6H, m), 7.73 (1H, d, J = 7.8 Hz), 7.79 (1H, s), 8.19 (1H, s).
1-238	δ 2.69 (2H, t, J = 6.8 Hz), 4.28 (2H, t, J = 6.8 Hz), 5.55 (1H, s), 5.99 (1H, s), 7.19-7.21 (1H, m), 7.28-7.39 (4H, m), 7.45 (1H, d, J = 7.8 Hz), 7.56 (1H, d, J = 7.8 Hz), 7.68 (1H, s), 7.78 (1H, d, J = 7.8 Hz), 7.82 (1H, s), 8.23 (1H, s).
1-239	(CDCl ₃ + DMSO-d ₆) δ 2.64-2.65 (2H, m), 4.27-4.28 (2H, m), 5.96 (1H, broad-s), 7.03 (1H, broad-s), 7.20-7.21 (1H, m), 7.27-7.36 (3H, m), 7.43-7.44 (2H, m), 7.50-7.52 (2H, m), 7.90-7.91 (2H, m), 10.06 (1H, s).
1-240	δ 2.72-2.76 (2H, m), 4.29 (2H, t, J = 6.8 Hz), 5.54 (1H, broad-s), 6.09 (1H, broad-s), 7.09-7.13 (1H, m), 7.28-7.33 (2H, m), 7.36-7.38 (2H, m), 7.53 (1H, dd, J = 2.0, 7.8 Hz), 7.73-7.75 (1H, m), 7.84 (1H, s), 8.07 (1H, s), 8.25 (1H, dd, J = 2.0, 4.9 Hz).
1-241	δ 2.72 (2H, t, J = 6.8 Hz), 4.31 (2H, t, J = 6.8 Hz), 5.47 (1H, broad-s), 6.09 (1H, broad-s), 7.18-7.21 (2H, m), 7.28-7.30 (3H, m), 7.33-7.35 (1H, m), 7.41 (1H, t, J = 7.8 Hz), 7.70 (1H, s), 7.73-7.75 (1H, m), 8.11-8.12 (1H, m), 8.25 (1H, s), 8.47 (1H, s).
1-242	δ 2.77 (2H, t, J = 6.3 Hz), 4.29 (2H, t, J = 6.3 Hz), 5.56 (1H, broad-s), 6.02 (1H, broad-s), 7.11-7.14 (1H, m), 7.39-7.44 (2H, m), 7.56 (1H, d, J = 6.3 Hz), 7.77 (1H, d, J = 7.3 Hz), 7.85 (1H, s), 8.13 (1H, s), 8.25-8.26 (2H, m), 8.57 (1H, s).
2-133	δ 3.33-3.41 (2H, m), 3.97-3.99 (1H, m), 5.10-5.15 (1H, m), 5.32 (2H, broad-s), 7.22-7.24 (1H, m), 7.43 (2H, d, J = 7.8 Hz), 7.53 (2H, d, J = 7.8 Hz), 7.59 (1H, t, J = 7.8 Hz), 7.89 (2H, s), 7.97 (1H, d, J = 12.2 Hz), 8.06-8.08 (1H, m).
3-133	δ 3.10 (3H, s), 3.34-3.38 (1H, m), 3.70-3.74 (1H, m), 4.24 (1H, t, J = 6.8 Hz), 4.51 (1H, t, J = 6.8 Hz), 7.33 (1H, t, J = 7.8 Hz), 7.45 (2H, d, J = 8.3 Hz), 7.52 (2H, d, J = 8.3 Hz), 7.62-7.66 (1H, m), 7.83-7.85 (1H, m), 7.87 (2H, s), 8.05 (1H, t, J = 7.3 Hz).
3-163	δ 3.09 (3H, s), 3.40-3.41 (1H, m), 3.70-3.71 (1H, m), 4.34-4.37 (2H, m), 7.19-7.23 (2H, m), 7.28-7.34 (4H, m), 7.55-7.59 (1H, m), 7.85 (2H, s), 7.90-7.93 (1H, m), 8.02-8.03 (1H, m).
3-164	δ 3.10 (3H, s), 3.38-3.39 (1H, m), 3.79-3.80 (1H, m), 4.27-4.28 (1H, m), 4.47-4.48 (1H, m), 7.28-7.37 (2H, m), 7.51 (1H, d, J = 7.8 Hz), 7.60 (1H, d, J = 7.8 Hz), 7.65-7.70 (1H, m), 7.72 (1H, s), 7.86 (2H, s), 7.91-7.94 (1H, m), 8.06 (1H, t, J = 6.8 Hz).
3-197	δ 3.08 (3H, s), 3.37-3.38 (1H, m), 3.71-3.72 (1H, m), 4.29-4.30 (1H, m), 4.42 (1H, t, J = 7.3 Hz), 7.22 (1H, d, J = 8.3 Hz), 7.36-7.41 (1H, m), 7.63-7.70 (2H, m), 7.86 (2H, s), 7.89 (1H, s), 8.09 (1H, t, J = 6.8 Hz), 8.36-8.37 (1H, m).
5-1	δ 2.27 (6H, s), 2.77 (2H, t, J = 6.8 Hz), 3.61 (3H, s), 4.30 (2H, t, J = 6.8 Hz), 7.18-7.34 (9H, m), 7.39-7.40 (1H, m), 7.58 (1H, s), 7.70 (1H, d, J = 7.3 Hz).
5-4	(DMSO-d ₆) δ 2.19 (6H, s), 2.57 (2H, t, J = 7.3 Hz), 4.08 (2H, t, J = 7.3 Hz), 7.21-7.26 (5H, m), 7.41-7.42 (4H, m), 7.73 (2H, s), 9.89 (1H, s).
5-5	A proton assigned for carboxylic acid is not detected. δ 2.37 (6H, s), 3.88-4.01 (5H, m), 6.95 (1H, d, J = 7.8 Hz), 7.13 (1H, t, J = 7.8 Hz), 7.26 (2H, s), 7.49 (2H, t, J = 7.8 Hz), 7.52-7.58 (2H, m), 7.68 (1H, broad-s), 7.72 (1H, t, J = 1.9 Hz), 7.77-7.79 (2H, m).
5-8	δ 2.26 (6H, s), 2.93 (2H, t, J = 6.3 Hz), 4.23 (2H, t, J = 6.3 Hz), 7.20-7.37 (9H, m), 7.44-7.45 (1H, m), 7.68 (1H, s), 7.42 (1H, d, J = 7.8 Hz).
5-10	δ 2.30(6H, s), 2.84(2H, t, J = 7.3 Hz), 2.90(3H, s), 3.05(3H, s), 4.31 (2H, t, J = 7.3 Hz), 7.18-7.26(3H, m), 7.27-7.35(6H, m), 7.68-7.71 (2H, m), 7.75(1H, s).
5-11	δ 1.10(6H, d, J = 6.8 Hz), 2.30(6H, s), 2.64(2H, t, J = 6.8 Hz), 3.96-4.04(1H, m), 4.31 (2H, t, J = 6.8 Hz), 5.85(1H, d, J = 7.8 Hz), 7.18-7.22(3H, m), 7.28-7.34(6H, m), 7.70-7.72(3H, m).
5-12	δ 1.10(6H, d, J = 6.8 Hz), 2.32(6H, s), 2.62(2H, t, J = 6.3 Hz), 3.97-4.01 (1H, m), 4.30(2H, t, J = 6.3 Hz), 5.68(1H, d, J = 6.8 Hz), 7.1 (5H, d, J = 8.3 Hz), 7.32-7.41 (5H, m), 7.50(2H, d, J = 8.3 Hz), 7.73(1H, d, J = 7.8 Hz), 7.81 (2H, broad-s).
5-14	δ 2.28(6H, s), 2.84(2H, t, J = 7.3 Hz), 3.55-3.58(4H, m), 3.63-3.70(4H, m), 4.29(2H, t, J = 7.3 Hz), 7.18-7.24(2H, m), 7.28-7.38(7H, m), 7.49(1H, broad-s), 7.69-7.71(2H, m).
5-15	A proton assigned for NH is not detected. δ 1.41-1.45 (18H, m), 1.56-1.59 (2H, m), 1.68-1.69 (1H, m), 2.04 (6H, s), 2.66-2.69 (2H, m), 3.35-3.36 (2H, m), 4.20-4.24 (1H, m), 4.25-4.29 (2H, m), 5.10-5.11 (1H, m), 6.40-6.41 (1H, m), 7.19-7.21 (3H, m), 7.24-7.29 (5H, m), 7.38-7.39 (2H, m), 7.77 (1H, s), 7.94-7.95 (1H, m).
5-16	A proton assigned for NH is not detected. δ 1.25 (9H, s), 1.41 (9H, s), 1.85-2.00 (1H, m), 2.05-2.16 (1H, m), 2.17 (6H, s), 2.33 (2H, dd, J = 2.0, 7.8 Hz), 2.62 (2H, t, J = 6.3 Hz), 4.15-4.35 (2H, m), 4.55-4.65 (1H, m), 7.15-7.24 (2H, m), 7.27-7.30 (6H, m), 7.42-7.44 (2H, m), 7.69 (1H, s), 7.83 (1H, d, J = 7.8 Hz), 8.04 (1H, s).
5-17	δ 1.20 (9H, s), 1.40 (9H, s), 1.28-1.80 (6H, m), 2.20 (6H, s), 2.60-2.64 (2H, m), 3.12-3.13 (2H, m), 4.11 (1H, m), 4.30 (1H, m), 4.50 (2H, m), 7.16-7.19 (3H, m), 7.24-7.30 (4H, m), 7.43-7.46 (2H, m), 7.71 (1H, s), 7.84 (1H, d, J = 7.8 Hz), 8.02 (1H, s).
5-18	A proton assigned for NH is not detected. δ 1.16 (9H, s), 1.25 (9H, s), 2.22 (6H, s), 2.64 (2H, t, J = 6.3 Hz), 3.50 (1H, dd, J = 2.9, 8.8 Hz), 3.79 (1H, dd, J = 2.9, 8.8 Hz), 4.25-4.35 (1H, m), 4.40-4.60 (2H, m), 6.60-6.70 (1H, m), 7.23-7.31 (7H, m), 7.37-7.42 (2H, m), 7.74 (1H, s), 7.82 (1H, d, J = 7.3 Hz), 7.93 (1H, s).
5-19	δ 1.29 (9H, s), 1.90-2.10 (1H, m), 2.21 (6H, s), 2.20-2.40 (3H, m), 2.55-2.65 (2H, m), 4.25-4.55 (3H, m), 5.30-5.40 (1H, broad-s), 6.35-6.45 (1H, broad-s), 7.16-7.20 (3H, m), 7.24-7.31 (5H, m), 7.39-7.45 (2H, m), 7.70 (1H, s), 7.81 (1H, d, J = 7.3 Hz), 8.05 (1H, s).
5-20	δ 2.21 (6H, s), 2.66 (2H, t, J = 6.3 Hz), 4.06 (2H, d, J = 5.9 Hz), 4.41 (2H, t, J = 6.3 Hz), 4.86 (2H, s), 7.11-7.24 (4H, m), 7.26-7.43 (1H, m), 7.78-7.81 (2H, m), 7.89 (1H, s).
5-21	DMSO-d ₆ δ 2.21 (6H, s), 2.53 (2H, t, J = 7.3 Hz), 3.58 (2H, d, J = 5.9 Hz), 4.10 (2H, t, J = 7.3 Hz), 7.02 (1H, s), 7.21-7.30 (6H, m), 7.43-7.45 (4H, m), 7.74-7.78 (2H, m), 8.19-8.20 (1H, m), 9.89 (1H, s).
5-22	δ 1.38 (9H, s), 1.42 (9H, s), 2.26 (6H, s), 2.77-2.78 (2H, m), 4.23-4.33 (5H, m), 5.40 (1H, m), 7.25-7.33 (8H, m), 7.39 (1H, m), 7.59 (1H, s), 7.73-7.75 (2H, m, J = 3.9 Hz).
5-23	DMSO-d ₆ δ 2.21 (6H, s), 2.48-2.56 (2H, m), 3.67 (2H, d, J = 5.9 Hz), 4.08 (2H, t, J = 7.3 Hz), 7.21-7.29 (5H, m), 7.42-7.45 (4H, m), 7.73-7.77 (2H, m), 8.28 (1H, s), 9.93 (1H, s).
	A proton assigned for carboxylic acid is not detected.

TABLE 10-continued

compound number	¹ H-NMR(CDCl ₃ , ppm)
5-24	(DMSO-d ₆) δ 1.45-1.50 (2H, m), 1.50-1.52 (2H, m), 2.20 (6H, s), 2.46-2.47 (2H, m), 2.99 (2H, t, J = 6.3 Hz), 4.10 (2H, t, J = 7.3 Hz), 7.23-7.28 (5H, m), 7.41-7.42 (4H, m), 7.78 (2H, s), 8.15-8.16 (1H, m), 8.33-8.34 (3H, m), 10.05 (1H, s). A proton assigned for carboxylic acid is not detected.
5-25	(DMSO-d ₆) δ 2.22 (6H, s), 2.71-2.76 (2H, m), 4.13-4.19 (2H, m), 4.27-4.33 (2H, m), 4.48-4.51 (1H, m), 7.21-7.29 (5H, m), 7.40-7.43 (4H, m), 7.78-7.80 (2H, m), 8.50 (3H, broad-s), 10.07 (1H, s).
5-26	(DMSO-d ₆) δ 1.33-1.35 (2H, m), 1.52-1.75 (4H, m), 2.22 (6H, s), 2.56 (2H, t, J = 7.6 Hz), 3.36-3.74 (2H, m), 4.07-4.15 (3H, m), 7.23-7.27 (5H, m), 7.43-7.44 (4H, m), 7.76-7.81 (5H, m), 8.32 (1H, d, J = 7.8 Hz), 9.98 (1H, s).
5-27	(DMSO-d ₆) δ 2.21 (6H, s), 2.58 (2H, t, J = 7.8 Hz), 4.07-4.28 (5H, m), 4.53-4.54 (1H, m), 7.23-7.29 (5H, m), 7.43-7.44 (4H, m), 7.73-7.77 (2H, m), 8.49 (1H, d, J = 7.8 Hz), 9.89 (1H, s). A proton assigned for carboxylic acid is not detected.
5-28	(DMSO-d ₆) δ 1.70-1.75 (1H, m), 1.90-1.92 (1H, m), 2.21 (6H, s), 2.24-2.34 (2H, m), 2.53-2.57 (2H, m), 4.07-4.09 (2H, m), 4.18-4.19 (1H, m), 7.21-7.29 (5H, m), 7.43-7.44 (4H, m), 7.72 (1H, s), 7.76 (1H, s), 8.30 (1H, d, J = 7.8 Hz), 9.88 (1H, s). A proton assigned for carboxylic acid is not detected.
5-29	(DMSO-d ₆) δ 1.68-1.70 (1H, m), 1.90-1.92 (1H, m), 2.09-2.13 (2H, m), 2.21 (6H, m), 2.53-2.56 (2H, m), 4.06-4.14 (3H, m), 6.78 (1H, m), 7.23-7.29 (6H, m), 7.43-7.45 (4H, s), 7.70-7.73 (2H, s), 8.32 (1H, d, J = 7.3 Hz), 9.92 (1H, s). A proton assigned for carboxylic acid is not detected.
5-30	(DMSO-d ₆) δ 2.21 (6H, s), 2.33 (1H, dt, J = 7.8 Hz), 2.46-2.58 (3H, m), 4.09 (1H, t, J = 7.1 Hz), 4.48 (1H, dt, J = 7.8 Hz), 4.45-4.50 (1H, m), 6.86 (1H, s), 7.03 (1H, s), 7.23-7.28 (7H, m), 7.43-7.44 (4H, m), 7.73-7.78 (2H, m), 8.13 (1H, d, J = 8.3 Hz), 9.90 (1H, s).
5-31	(DMSO-d ₆) δ 2.40-2.70 (2H, m), 3.56-3.58 (2H, m), 3.97 (1H, broad-s), 4.10 (1H, broad-s), 7.02 (1H, s), 7.31 (2H, broad-s), 7.45-7.47 (2H, m), 7.61 (1H, broad-s), 7.73-7.75 (3H, m), 7.95 (1H, s), 8.03 (2H, s), 8.25 (1H, broad-s).
5-32	(DMSO-d ₆) δ 1.60-1.75 (1H, m), 1.75-1.90 (1H, m), 2.06 (2H), 1.95-2.20 (2H, m), 4.00 (1H), 4.12 (2H), 6.76 (1H), 7.00-7.05 (1H, m), 7.25-7.35 (3H, m), 7.44-7.46 (2H, m), 7.61-7.75 (5H, m), 7.95 (1H), 8.02-8.20 (2H, m).
5-33	δ 2.63-2.64 (2H, m), 4.20-4.21 (2H, m), 7.12-7.24 (2H, m), 7.39-7.40 (1H, m), 7.51-7.52 (3H, m), 7.69-7.70 (1H, m), 7.81 (2H, s), 7.85-7.86 (1H, m), 7.91-7.92 (1H, m), 8.31-8.32 (1H, m).
5-34	δ 2.63-2.64 (2H, m), 4.18-4.19 (2H, m), 7.23-7.24 (1H, m), 7.29-7.52 (6H, m), 7.83 (2H, s), 7.86-7.87 (1H, m), 7.91-7.92 (1H, m), 8.14-8.15 (1H, m).
5-35	δ 2.17 (6H, s), 2.90 (1H, broad-s), 3.28 (3H, s), 3.70-3.72 (2H, m), 3.85-3.92 (2H, m), 6.91-7.07 (3H, m), 7.11-7.39 (8H, m).
5-36	δ 2.36 (6H, s), 2.82 (2H, t, J = 6.8 Hz), 2.90 (3H, s), 3.05 (3H, s), 4.30 (2H, t, J = 6.8 Hz), 7.19 (1H, d, J = 7.8 Hz), 7.34-7.38 (3H, m), 7.42 (2H, d, J = 8.3 Hz), 7.50 (2H, d, J = 8.3 Hz), 7.72 (1H, d, J = 7.8 Hz), 7.77 (1H, broad-s), 7.84 (1H, broad-s).
5-37	δ 2.31 (6H, s), 2.87 (2H, t, J = 6.8 Hz), 2.90 (3H, s), 3.10 (3H, s), 4.30 (2H, t), 7.10-7.13 (1H, m), 7.34-7.41 (4H, m), 7.57-7.59 (1H, m), 7.72 (1H, broad-s), 7.74 (1H, broad-s), 7.87 (1H, broad-s), 8.24-8.25 (1H, m).
5-71	δ 2.13 (6H, s), 2.18 (3H, s), 2.66 (2H, t, J = 7.3 Hz), 3.27 (3H, s), 3.92 (2H, t, J = 7.3 Hz), 6.90-6.96 (3H, m), 7.11-7.16 (4H, m), 7.21-7.26 (3H, m), 7.33-7.34 (1H, m).
5-72	δ 2.17 (6H, s), 2.66 (3H, s), 2.90-2.94 (1H, m), 3.17-3.19 (1H, m), 3.26 (3H, s), 4.00-4.02 (1H, m), 4.11-4.13 (1H, m), 6.85-6.87 (1H, m), 6.97 (1H, t, J = 7.8 Hz), 7.08-7.29 (9H, m).
5-73	δ 2.09 (6H, s), 3.03 (3H, s), 3.26 (3H, s), 3.35 (2H, t, J = 7.3 Hz), 4.19 (2H, t, J = 7.3 Hz), 6.85-6.87 (1H, m), 6.96 (1H, t, J = 7.8 Hz), 7.06-7.07 (1H, m), 7.14-7.29 (8H, m).
5-74	δ 2.29 (6H, s), 3.84 (2H, t, J = 5.4 Hz), 4.03 (2H, t, J = 5.4 Hz), 4.46 (2H, s), 6.80-7.79 (17H, m).
5-75	δ 2.35 (6H, s), 3.39 (3H, s), 3.38-3.85 (8H, m), 7.20-8.05 (12H, m).
5-76	δ 1.24-1.30 (3H, m), 3.25 (2H, m), 3.37 (2H, m), 4.20 (1H, m), 4.35 (2H, m), 7.29 (3H, m), 7.41 (2H, m), 7.52 (2H, m), 7.91 (1H, m), 8.05 (1H, m), 8.14 (1H, m).
5-77	(DMSO-d ₆) δ 2.68-2.72 (2H, m), 2.78 (3H, m), 2.95 (3H, s), 4.04-4.09 (2H, m), 7.22-7.29 (5H, m), 7.45-7.49 (2H, m), 7.74-7.76 (2H, m), 7.95 (1H, s), 8.51 (1H, s), 10.60 (1H, s).
5-78	(DMSO-d ₆) δ 2.71-2.72 (2H, m), 2.78 (3H, s), 2.94 (3H, s), 4.08-4.09 (2H, m), 7.45-7.54 (4H, m), 7.73-7.78 (4H, m), 7.96 (1H, s), 8.52 (1H, s), 10.58 (1H, s).
5-79	(DMSO-d ₆) δ 2.72-2.76 (2H, m), 2.79 (3H, m), 2.97 (3H, s), 4.09-4.10 (2H, m), 7.10-7.11 (1H, m), 7.29-7.32 (1H, m), 7.43-7.48 (2H, m), 7.52-7.54 (1H, m), 7.74-7.76 (2H, m), 7.95 (1H, s), 8.52 (1H, s), 10.60 (1H, s).
5-80	(DMSO-d ₆) δ 2.66-2.70 (2H, m), 3.54 (3H, s), 4.12-4.15 (2H, m), 7.21-7.29 (5H, m), 7.45-7.47 (2H, m), 7.72 (1H, s), 7.76 (1H, d, J = 7.3 Hz), 7.95 (1H, s), 8.51 (1H, s), 10.59 (1H, s).
5-81	(DMSO-d ₆) δ 2.41-2.47 (2H, m), 4.05-4.09 (2H, m), 7.23-7.29 (5H, m), 7.43-7.48 (2H, m), 7.68-7.75 (2H, m), 7.95 (1H, s), 8.50 (1H, s), 9.14-9.15 (2H, m), 10.59 (1H, s).
5-82	(DMSO-d ₆) δ 2.71-2.72 (2H, m), 2.78 (3H, s), 2.95 (3H, s), 4.04-4.07 (2H, m), 7.44-7.58 (4H, m), 7.74-7.81 (4H, m), 7.95 (1H, s), 8.52 (1H, s), 10.58 (1H, s).
5-83	δ 2.24 (6H, s), 2.65 (2H, m), 3.65 (2H, m), 4.23 (2H, m), 5.35 (1H, m), 7.26-7.53 (6H, m), 7.86-7.93 (4H, m).
5-84	δ 2.26 (6H, m), 2.38 (1H, t, J = 6.3 Hz), 3.58-3.62 (2H, m), 3.73-3.77 (2H, m), 3.84 (2H, t, J = 4.9 Hz), 4.19 (2H, t, J = 4.9 Hz), 7.18-7.36 (9H, m), 7.71 (1H, d, J = 7.8 Hz), 7.77 (1H, s), 7.96 (1H, s).
5-85	δ 2.08 (6H, s), 3.00 (1H, t, J = 6.3 Hz), 3.27 (3H, s), 3.53 (2H, t, J = 4.4 Hz), 3.67-3.72 (4H, m), 3.96 (2H, t, J = 4.4 Hz), 6.73 (1H, d, J = 7.8 Hz), 6.88 (1H, t, J = 7.8 Hz), 6.98 (1H, d, J = 7.8 Hz), 7.10-7.46 (8H, m).
5-86	DMSO-d ₆ δ 2.44-2.46 (2H, m), 3.33 (3H, s), 4.02-4.09 (2H, m), 7.23-7.28 (5H, m), 7.46-7.47 (2H, m), 7.68 (1H, broad-s), 7.74-7.76 (1H, m), 7.91-7.92 (1H, m), 7.95 (1H, s), 8.50 (1H, s), 10.57 (1H, s).
5-87	(DMSO-d ₆) δ 2.63-2.68 (2H, m), 2.81 (3H, s), 2.95 (3H, s), 4.17-4.20 (2H, m), 7.30-7.31 (6H, m), 7.57-7.62 (2H, m), 7.94 (1H, s), 8.50 (1H, s), 10.68 (1H, broad-s).
5-88	(DMSO-d ₆) δ 2.58-2.62 (2H, m), 4.02-4.11 (2H, m), 7.21-7.30 (5H, m), 7.46-7.49 (2H, m), 7.74-7.76 (2H, m), 7.95 (1H, s), 8.51 (1H, s), 10.6 (1H, broad-s), 12.5 (1H, broad-s).
5-89	δ 2.17 (6H, s), 3.65 (4H, s), 3.80 (2H, broad-s), 4.43 (2H, s), 7.06-7.84 (17H, m).
5-90	δ 2.10 (6H, s), 3.26 (3H, s), 3.61-3.69 (6H, m), 3.84 (2H, t, J = 4.9 Hz), 4.54 (2H, s), 6.88-7.34 (16H, m).

TABLE 10-continued

compound number	¹ H-NMR(CDCl ₃ , ppm)
5-91	δ 2.19 (1/2*6H, s), 2.24 (1/2*6H, s), 2.42 (1/2*2H, t, J = 6.8 Hz), 2.67 (1/2*2H, t, J = 6.8 Hz), 4.11 (1/2*2H, t, J = 6.8 Hz), 4.26 (1/2*2H, t, J = 6.8 Hz), 4.75 (1H, s), 5.69 (1/2*1H, broad-s), 6.30 (1/2*1H, broad-s), 7.12-7.95 (13H, m).
5-92	δ 2.23 (6H, m), 2.75 (2H, m), 4.08 (2H, m), 4.21 (2H, m), 7.03 (1H, m), 7.27-7.53 (7H, m), 7.71-7.74 (2H, m), 7.92-7.96 (1H, m).
5-93	δ 2.17-2.18 (6H, m), 2.49 (2H, t, J = 5.3 Hz), 2.81 (2H, t, J = 6.3 Hz), 4.04 (2H, t, J = 5.3 Hz), 4.33 (2H, t, J = 6.3 Hz), 7.16-7.20 (2H, m), 7.24-7.25 (1H, m), 7.27-7.29 (2H, m), 7.39-7.48 (3H, m), 7.72 (1H, d, J = 7.8 Hz), 7.91 (1H, s), 8.22 (1H, s), 8.31 (1H, s).
5-94	δ 2.22 (6H, s), 2.51-2.52 (2H, m), 2.80 (2H, t, J = 6.3 Hz), 4.07 (2H, t, J = 5.3 Hz), 4.32 (2H, t, J = 6.3 Hz), 7.29-7.33 (2H, m), 7.37-7.39 (2H, m), 7.45-7.56 (2H, m), 7.76 (1H, s), 7.77 (1H, d, J = 7.8 Hz), 7.92 (1H, s), 8.30-8.31 (1H, m), 8.33 (1H, s).
5-95	δ 2.21 (6H, s), 2.49 (2H, t, J = 5.8 Hz), 2.79 (2H, t, J = 6.3 Hz), 4.07 (2H, t, J = 5.8 Hz), 4.32 (2H, t, J = 6.3 Hz), 7.34-7.40 (3H, m), 7.44-7.54 (4H, m), 7.75 (1H, d, J = 7.3 Hz), 7.93 (1H, s), 8.16 (1H, s), 8.33 (1H, s).
5-96	δ 2.83 (2H, t, J = 6.8 Hz), 2.89 (3H, s), 3.04 (3H, s), 4.32 (2H, t, J = 6.8 Hz), 7.19-7.20 (1H, m), 7.32-7.34 (1H, m), 7.41 (1H, t, J = 7.8 Hz), 7.65 (1H, d, J = 7.8 Hz), 7.70-7.73 (2H, m), 7.92 (1H, s), 8.09 (1H, s), 8.32 (1H, s), 8.52-8.53 (2H, m).
5-97	δ 2.78-2.79 (2H, m), 2.88 (3H, s), 3.02 (3H, s), 4.25 (2H, t, J = 6.3 Hz), 7.08-7.10 (2H, m), 7.38-7.46 (2H, m), 7.80-7.83 (2H, m), 7.91 (1H, s), 7.97-7.98 (1H, m), 8.19 (1H, s), 8.31 (1H, s), 9.03 (1H, s).
5-98	δ 2.25 (6H, s), 2.88 (2H, t, J = 6.8 Hz), 4.30 (2H, t, J = 6.8 Hz), 7.16-7.72 (12H, m), 9.81 (1H, s).
5-99	δ 2.55 (2/3*2H, t, J = 6.8 Hz), 2.70 (1/3*2H, t, J = 6.8 Hz), 3.50 (2H, broad-s), 4.17 (2/3*2H, t, J = 6.8 Hz), 4.30 (1/3*2H, t, J = 6.8 Hz), 4.88 (1H, broad-s), 7.14-7.78 (10H, m), 8.04 (2/3*2H, s), 8.06 (1/3*2H, s).
5-100	δ 2.17 (3H, s), 2.28 (3H, s), 2.92 (2H, t, J = 6.8 Hz), 4.25 (2H, t, J = 6.8 Hz), 7.18-7.39 (10H, m), 7.58 (1H, s), 7.69 (1H, d, J = 7.8 Hz).
5-101	δ 2.77-2.78 (1H, m), 2.92 (3H, s), 2.97-2.98 (1H, m), 3.07 (3H, s), 4.21-4.26 (2H, m), 7.17-7.18 (1H, m), 7.33 (1H, t, J = 7.8 Hz), 7.64-7.66 (2H, m), 7.91 (1H, s), 7.96-8.00 (2H, m), 8.32 (1H, s), 8.51-8.52 (1H, m), 8.57-8.58 (1H, m).
5-102	δ 2.74-2.75 (1H, m), 2.91 (3H, s), 2.95-2.96 (1H, m), 3.06 (3H, s), 4.21-4.22 (2H, m), 7.12-7.13 (2H, m), 7.35 (1H, t, J = 7.8 Hz), 7.69-7.70 (1H, m), 7.92 (1H, s), 7.99-8.00 (1H, m), 8.06-8.07 (1H, m), 8.25-8.26 (1H, m), 8.30-8.33 (2H, m).
5-103	δ 2.84 (2H, t), 2.90 (3H, s), 3.05 (3H, s), 4.40 (2H, t), 7.18-7.22 (2H, m), 7.28-7.39 (5H, m), 7.71 (1H, d), 7.76 (1H, s), 8.11-8.12 (1H, m), 8.27 (1H, s), 8.49 (1H, s).
5-104	δ 2.87-2.91 (5H, m), 3.11 (3H, s), 4.39 (2H, t, J = 6.8 Hz), 7.11-7.14 (1H, m), 7.39 (1H, t, J = 7.8 Hz), 7.46 (1H, d, J = 7.8 Hz), 7.59-7.60 (1H, m), 7.75-7.77 (1H, m), 7.90-7.92 (1H, m), 8.13-8.15 (1H, m), 8.24-8.26 (2H, m), 8.69 (1H, s).
5-105	δ 1.82 (3/4*3H, s), 1.92 (1/4*3H, s), 2.24 (3/4*6H, s), 2.26 (1/4*6H, s), 2.58 (3/4*2H, t, J = 6.8 Hz), 2.78 (1/4*2H, t, J = 6.8 Hz), 4.21 (2H, t, J = 6.8 Hz), 7.18-7.71 (13H, m).
5-106	δ 2.23 (6H, s), 2.59 (2H, t, J = 5.4 Hz), 3.71 (6H, s), 4.35-4.47 (5H, m), 6.90 (1H, s), 7.18-7.49 (10H, m), 7.61 (1H, s), 7.74 (1H, d, J = 6.8 Hz).
5-107	δ 2.29 (6H, s), 2.75 (2H, t, J = 6.4 Hz), 3.26 (3H, s), 4.32 (2H, t, J = 6.4 Hz), 4.61 (2H, s), 4.79 (2H, d, J = 6.4 Hz), 6.75-7.42 (10H, m), 7.52 (1H, s), 7.63 (1H, s), 7.73 (1H, d, J = 7.8 Hz).
5-108	δ 2.88-3.04 (2H, m), 4.17-4.21 (2H, m), 7.43 (1H, t, J = 7.8 Hz), 7.69-7.70 (1H, m), 7.86 (2H, s), 7.90 (1H, d, J = 10.7 Hz), 8.09-8.12 (1H, m), 8.73 (2H, s), 9.15 (1H, s).
5-109	δ 2.11 (6H, s), 2.25 (6H, s), 2.48 (2H, t, J = 6.8 Hz), 3.27 (3H, s), 3.89 (2H, t, J = 6.8 Hz), 6.81-7.34 (11H, m).
5-110	δ 1.84-1.87 (2H, m), 2.35 (6H, s), 3.57 (9H, s), 3.75 (2H, t, J = 6.8 Hz), 7.02-8.09 (12H, m).
5-111	(DMSO-d ₆) δ 2.90-2.93(2H, m), 4.15-4.19(2H, m), 7.10-7.15(3H, m), 7.30-7.32(1H, m), 7.50-7.52(2H, m), 7.84-7.85(2H, m), 8.14(2H, s), 10.58(1H, s).
5-112	δ 2.75 (2H, t, J = 6.8 Hz), 4.07 (2H, broad-s), 7.12-7.89 (10H, m), 8.01 (2H, s).
5-128	δ 2.24 (6H, s), 2.50 (2H, t, J = 5.8 Hz), 2.83 (2H, t, J = 6.3 Hz), 4.09 (2H, t, J = 5.8 Hz), 4.32 (2H, t, J = 6.3 Hz), 7.09-7.12 (1H, m), 7.43-7.47 (2H, m), 7.54-7.56 (1H, m), 7.68 (1H, s), 7.72 (1H, d, J = 7.3 Hz), 7.93 (1H, s), 8.01 (1H, s), 8.23 (1H, dd, J = 1.5, 4.4 Hz), 8.34 (1H, s).
6-1	δ 2.18 (6H, s), 3.29 (3H, s), 3.79 (3H, s), 4.27 (2H, s), 6.92-6.94 (2H, m), 7.02-7.05 (1H, m), 7.10-7.14 (2H, m), 7.18-7.41 (6H, m).
6-3	δ 2.15 (6H, s), 3.29 (3H, s), 4.34 (2H, s), 4.70 (1H, broad-s), 6.92-6.94 (2H, m), 6.99-7.03 (1H, m), 7.10-7.28 (8H, m).
6-5	δ 1.31 (3H, t, J = 7.3 Hz), 2.17 (6H, s), 3.29 (3H, s), 4.23 (2H, q, J = 7.3 Hz), 4.26 (2H, s), 6.92-6.93 (2H, m), 7.00-7.02 (1H, m), 7.11-7.26 (7H, m), 7.40-7.50 (1H, m).
6-6	δ 2.12 (3H, s), 2.18 (6H, s), 3.29 (3H, s), 4.82 (2H, s), 6.93-6.97 (2H, m), 7.03-7.05 (1H, m), 7.10-7.15 (4H, m), 7.22-7.26 (4H, m).
6-7	δ 2.18 (6H, s), 2.65 (3H, s), 3.26 (3H, s), 4.43 (1H, d, J = 13.1 Hz), 5.09 (1H, d, J = 13.1 Hz), 6.99-7.01 (2H, m), 7.16-7.32 (9H, m).
6-8	δ 2.18 (6H, s), 3.05 (3H, s), 3.28 (3H, s), 4.92 (2H, s), 6.99-7.01 (1H, m), 7.08-7.11 (2H, m), 7.16-7.24 (3H, m), 7.29-7.41 (5H, m).
6-9	δ 1.45(3H, d, J = 6.8 Hz), 2.29(6H, s), 2.57-2.63(1H, m), 2.98-3.00(1H, m), 4.95(1H, broad-s), 5.53(1H, broad-s), 6.19(1H, broad-s), 7.14-7.18(5H, m), 7.30-7.39(4H, m), 7.70(1H, broad-s), 7.77(2H, d, J = 7.3 Hz).
6-10	δ 1.25(3H, d, J = 7.3 Hz), 2.30(6H, s), 3.00-3.08(1H, m), 4.09-4.12(2H, m), 5.67(1H, broad-s), 6.69(1H, broad-s), 7.17-7.32(9H, m), 7.75-7.78(2H, m), 8.73(1H, broad-s).
6-12	δ 2.16 (6H, s), 3.28 (3H, s), 4.20 (2H, s), 5.50 (1H, broad-s), 6.10 (1H, broad-s), 6.94-6.95 (2H, m), 7.04-7.06 (1H, m), 7.12-7.33 (8H, m).
6-13	δ 1.86-1.89(2H, m), 2.15(6H, s), 2.35(2H, t, J = 7.3 Hz), 3.28(3H, s), 3.66(3H, s), 3.78(2H, t, J = 7.3 Hz), 6.89-6.94(3H, m), 7.11-7.12(4H, m), 7.21-7.25(3H, m), 7.34(1H, broad-s).
6-14	δ 1.85-1.87(2H, m), 2.26(6H, s), 2.42-2.43(2H, m), 3.28(3H, s), 3.83(2H, t, J = 7.3 Hz), 6.88-6.94(3H, m), 7.09-7.14(4H, m), 7.19-7.26(3H, m), 7.35(1H, broad-s). A proton assigned for carboxylic acid is not detected.
6-15	δ 1.86(2H, t, J = 6.8 Hz), 2.13(6H, s), 2.25-2.30(2H, m), 3.27(3H, s), 3.84(2H, t, J = 6.8 Hz), 5.35(1H, broad-s), 6.50(1H, broad-s), 6.90-6.95(3H, m), 7.11-7.13(4H, m), 7.25-7.30(3H, m), 7.34(1H, broad-s).
6-16	δ 2.08 (2H, quintet, J = 6.8 Hz), 2.31 (6H, s), 2.40 (2H, t, J = 6.8 Hz), 4.08 (2H, t, J = 6.8 Hz), 5.32 (1H, broad-s), 6.02 (1H, broad-s), 7.14-7.34 (9H, m), 7.74 (1H, d, J = 7.8 Hz), 7.80 (1H, s), 8.10 (1H, s).

TABLE 10-continued

compound number	¹ H-NMR(CDCl ₃ , ppm)
6-18	δ 2.20 (6H, s), 3.31 (3H, s), 4.45 (2H, s), 6.92-6.94 (1H, m), 7.04-7.05 (1H, m), 7.13-7.34 (9H, m).
6-20	δ 1.83 (6H, s), 1.89 (2H, broad-s), 3.31 (2H, t, J = 7.3 Hz), 4.09 (2H, t, J = 7.3 Hz), 7.18-7.36 (9H, m), 7.69-7.71 (2H, m), 7.89 (1H, s). A proton assigned for NH ₂ is not detected.
6-42	δ 2.12 (6H, s), 2.98 (1H, t, J = 6.8 Hz), 3.27 (3H, s), 3.29 (1H, d, J = 6.8 Hz), 3.61-3.96 (5H, m), 6.86-6.96 (3H, m), 7.13-7.16 (3H, m), 7.22 (2H, s), 7.22-7.29 (3H, m).
6-43	δ 1.44-1.47 (18H, m), 3.85-3.86 (1H, m), 4.25-4.26 (1H, m), 4.50-4.51 (1H, m), 7.18-7.19 (2H, m), 7.26-7.28 (2H, m), 7.58-7.61 (2H, m), 7.84 (2H, s), 7.96-7.99 (2H, m), 8.08-8.10 (1H, m).
6-44	δ 1.40-1.46 (18H, m), 3.78-3.79 (1H, m), 4.14-4.15 (1H, m), 4.24-4.25 (1H, m), 7.29-7.33 (2H, m), 7.44-7.45 (1H, m), 7.55-7.66 (3H, m), 7.86 (2H, s), 7.94-8.03 (2H, m).
6-45	δ 1.40 (9H, s), 1.45 (9H, s), 3.78-3.79 (1H, m), 4.24-4.26 (1H, m), 4.54-4.55 (1H, m), 7.38-7.40 (1H, m), 7.49-7.51 (1H, m), 7.58 (1H, t, J = 7.8 Hz), 7.78 (2H, d, J = 8.3 Hz), 7.86-8.01 (3H, m), 8.19 (2H, d, J = 7.8 Hz)
6-46	δ 1.80 (2H, broad-t, J = 5.4 Hz), 2.27 (6H, s), 3.59 (1H, broad-s), 3.72 (2H, broad-s), 4.23 (2H, t, J = 5.4 Hz), 7.16-7.42 (10H, m), 7.57 (1H, s), 7.68 (1H, d, J = 7.3 Hz).
6-47	δ 1.98-2.07 (2H, m), 2.22 (6H, s), 3.63 (2H, t, J = 6.8 Hz), 4.09-4.15 (2H, m), 4.47 (2H, s), 7.05-7.70 (17H, m).
6-48	δ 2.31 (2/5*6H, s), 2.35 (1/5*6H, s), 2.42 (2/5*6H, s), 3.59-4.49 (7H, m), 6.94-7.79 (12H, m).
6-49	δ 1.78-1.79 (2H, m), 2.28 (6H, s), 2.44 (3H, d, J = 4.9 Hz), 3.36-3.42 (2H, m), 4.09-4.10 (2H, m), 4.20 (1H, broad-s), 4.93 (1H, broad-s), 7.14-7.18 (2H, m), 7.21-7.23 (2H, m), 7.27-7.31 (3H, m), 7.39-7.43 (2H, m), 7.81-7.83 (1H, m), 7.87 (1H, s), 8.95 (1H, s).
6-50	δ 1.97 (3H, s), 1.97-2.03 (2H, m), 2.24 (6H, s), 4.12 (2H, t, J = 6.8 Hz), 4.23 (2H, t, J = 6.8 Hz), 7.16-7.74 (12H, m).
6-51	δ 1.65-1.75 (4H, m), 2.24 (6H, s), 3.50 (2H, t, J = 6.3 Hz), 4.02 (2H, t, J = 6.3 Hz), 4.47 (2H, s), 7.07 (1H, broad-s), 7.20-7.34 (14H, m), 7.50 (1H, s), 7.66 (1H, d, J = 7.3 Hz).
6-52	δ 1.62-1.67 (2H, m), 1.78-1.82 (2H, m), 2.16 (1H, broad-s), 2.23 (6H, s), 3.68 (2H, broad-s), 4.04 (2H, t, J = 7.3 Hz), 7.16-7.29 (6H, m), 7.32 (2H, s), 7.39 (1H, t, J = 7.8 Hz), 7.57 (1H, s), 7.59 (1H, s), 7.70 (1H, d, J = 7.8 Hz).
6-53	δ 1.51-1.67 (6H, m), 2.19 (6H, s), 3.47 (2H, t, J = 5.9 Hz), 4.01 (2H, t, J = 7.3 Hz), 4.43 (2H, s), 7.18-7.71 (17H, m).
6-54	δ 1.50-1.69 (7H, m), 2.24 (6H, s), 3.61 (2H, q, J = 5.3 Hz), 4.03 (2H, t, J = 7.3 Hz), 7.17-7.33 (8H, m), 7.42 (1H, t, J = 7.8 Hz), 7.52 (2H, s), 7.70 (1H, d, J = 7.8 Hz).
6-55	δ 1.72-1.74 (2H, m), 3.46-3.47 (2H, m), 3.92-3.96 (2H, m), 4.49-4.52 (1H, m), 7.23-7.29 (7H, m), 7.41-7.45 (2H, m), 7.75 (1H, s), 7.94 (1H, s), 10.30 (1H, s).
6-56	δ 1.36-1.70 (5H, m), 2.14 (6H, s), 3.28 (3H, s), 3.76 (2H, t, J = 7.3 Hz), 3.83 (3H, s), 4.15 (2H, t, J = 6.3 Hz), 6.87-7.34 (11H, m).
6-57	δ 1.62-1.78 (4H, m), 2.50 (6H, s), 2.56 (2H, t, J = 6.8 Hz), 4.04 (2H, t, J = 6.8 Hz), 7.16-7.33 (8H, m), 7.40 (1H, t, J = 7.8 Hz), 7.58 (1H, s), 7.72 (1H, d, J = 7.8 Hz), 7.82 (1H, broad-s), 9.75 (1H, s).
6-58	δ 2.04 (2H, t, J = 6.8 Hz), 2.29 (6H, s), 2.64 (2H, t, J = 6.8 Hz), 4.02 (2H, t, J = 6.8 Hz), 7.16-7.72 (12H, m), 9.80 (1H, s).
6-59	δ 2.36 (6H, s), 4.27 (2H, s), 6.97 (1H, d, J = 7.8 Hz), 7.14 (1H, t, J = 7.8 Hz), 7.28 (2H, s), 7.47 (2H, t, J = 7.8 Hz), 7.55 (1H, t, J = 7.8 Hz), 7.61 (1H, dd, J = 1.5, 7.8 Hz), 7.73-7.82 (4H, m), 9.85 (1H, s).
6-60	δ 1.80-1.90 (2H, m), 2.35 (6H, s), 3.20-3.30 (2H, m), 3.95-4.02 (2H, m), 7.23-7.45 (8H, m), 7.73 (1H, s), 7.79 (1H, d, J = 7.3 Hz), 8.31 (2H, s), 9.89 (1H, broad-s).
6-61	δ 1.90 (2H, broad-s), 2.02-2.07 (2H, m), 2.26 (6H, s), 3.41 (2H, q, J = 6.4 Hz), 4.13 (2H, t, J = 6.4 Hz), 7.16-7.82 (12H, m), 8.56 (1H, s).
6-62	δ 1.71 (2H, quintet, J = 7.3 Hz), 2.13 (6H, s), 2.18 (6H, s), 2.29 (2H, t, J = 7.3 Hz), 3.27 (3H, s), 3.80 (2H, t, J = 7.3 Hz), 6.84-7.34 (11H, m).
6-63	δ 1.60-1.75 (1H, m), 2.00-2.10 (1H, m), 2.36 (6H, s), 2.52-2.62 (1H, m), 3.49-4.00 (6H, m), 2.80-8.00 (12H, m).
6-64	δ 2.05 (2H, q, J = 6.8 Hz), 2.25 (6H, s), 2.54 (2H, t, J = 6.8 Hz), 7.21 (2H, t, J = 6.8 Hz), 7.19-7.33 (9H, m), 7.42 (1H, t, J = 7.8 Hz), 7.62 (1H, s), 7.71 (1H, d, J = 7.8 Hz).
6-68	δ 1.35-1.65 (6H, m), 2.13 (6H, s), 3.27 (3H, s), 3.72-3.73 (2H, m), 4.49 (2H, s), 6.90-7.34 (16H, m), 7.45 (2H, t, J = 6.8 Hz).
6-69	δ 1.25-1.65 (7H, m), 2.11 (6H, s), 3.27 (3H, s), 3.60-3.65 (2H, m), 3.78 (2H, t, J = 7.8 Hz), 6.85-7.34 (11H, m).
7-1	δ 2.33(6H, s), 2.72-2.74(2H, m), 4.02(2H, m), 6.10(1H, broad-s), 6.78-6.80(1H, m), 7.04(1H, t, J = 7.8 Hz), 7.21(3H, broad-s), 7.35-7.61(5H, m), 7.87-7.89(2H, m), 9.80(1H, broad-s).
7-6	δ 2.31(6H, s), 2.84(2H, t, J = 7.8 Hz), 3.63(3H, s), 4.07(2H, t, J = 7.8 Hz), 6.87-6.89(1H, m), 7.10(1H, t, J = 7.8 Hz), 7.24-7.26(2H, m), 7.46-7.58(4H, m), 7.65-7.69(2H, m), 7.77-7.79(2H, m).
7-22	δ 2.32 (6H, s), 3.11 (3H, s), 3.58-3.63 (2H, m), 4.13-4.17 (2H, m), 6.70-6.72 (1H, m), 6.94-6.96 (1H, m), 7.25 (2H, s), 7.50-7.60 (3H, m), 7.80-7.82 (2H, m), 7.91 (1H, d, J = 3.9 Hz), 8.42-8.43 (1H, m).
7-23	δ 2.34(6H, broad-s), 3.08(3H, s), 3.20-3.22(1H, m), 3.47(1H, broad-s), 3.89(2H, broad-s), 6.79-6.83(1H, m), 6.88-6.89(1H, m), 7.06-7.35(9H, m).
7-169	δ 3.10 (3H, s), 3.74-3.78 (2H, m), 4.20-4.24 (2H, m), 6.85-7.26 (2H, m), 7.51-7.60 (3H, m), 7.78 (2H, s), 7.85-7.87 (2H, m), 8.06 (1H, d, J = 3.9 Hz), 8.48-8.50 (1H, m).
7-220	δ 2.44(6H, broad-s), 3.13(3H, s), 4.45(1H, broad-s), 5.77(1H, broad-s), 6.79-7.04(6H, m), 7.15-7.34(6H, m).
7-221	δ 2.37(6H, broad-s), 3.05(3H, s), 3.81(3H, s), 4.25(1H, broad-s), 4.40(1H, broad-s), 6.80-6.89(2H, m), 7.15-7.37(8H, m).
7-222	δ 2.47(6H, broad-s), 3.06(3H, s), 4.38(2H, broad-s), 6.81-6.89(2H, m), 7.14-7.52(8H, m). A proton assigned for carboxylic acid is not detected.
7-226	δ 2.04-2.08 (2H, m), 2.30 (6H, s), 2.46 (2H, t, J = 7.3 Hz), 3.63 (3H, s), 4.05 (2H, t, J = 7.3 Hz), 7.19-7.23 (3H, m), 7.28-7.37 (5H, m), 7.58-7.61 (2H, m), 7.70-7.72 (2H, m).
8-1	δ 2.11(6H, s), 2.58(2H, t, J = 6.8 Hz), 2.70(2H, t, J = 6.8 Hz), 3.96-4.05(4H, m), 5.45(1H, broad-s), 5.55(1H, broad-s), 6.20(1H, broad-s), 6.25(1H, broad-s), 6.80-6.82(1H, m), 6.91-6.99(2H, m), 7.11-7.17(5H, m), 7.22(2H, s), 7.30-7.40(1H, m).
8-12	δ 2.50(6H, broad-s), 3.51 (1H, s), 3.73(3H, s), 3.81(3H, s), 4.30(1H, broad-s), 4.35(1H, broad-s), 4.75(1H, broad-s), 6.79(1H, t, J = 7.8 Hz), 7.08-7.24(6H, m), 7.28-7.34(3H, m).

TABLE 10-continued

compound number	¹ H-NMR(CDCl ₃ , ppm)
8-13	δ 2.18-2.38(6H, broad-s), 4.10(1H, broad-s), 4.32(2H, s), 4.52(1H, broad-s), 6.02(2H, broad-s), 6.77(1H, t, J = 7.8 Hz), 7.03-7.41 (9H, m).
9-12	δ 2.36 (6H, s), 2.63-2.66 (2H, broad-s), 4.13 (2H, t, J = 7.3 Hz), 4.78 (2H, broad-s), 5.31 (2H, broad-s), 7.36 (2H, s), 7.52-7.59 (3H, m), 7.84-7.88 (2H, m).

TABLE 22

compound number	¹ H-NMR (CDCl ₃ , ppm) or APCI-MS
11-3	APCI-MS m/z (M + 1): 617
11-4	δ 7.74(1H, t, J = 8.0 Hz), 8.11(2H, s), 8.42(1H, d, J = 7.6 Hz), 8.46(1H, d, J = 8.4 Hz), 8.90(1H, d, J = 12.4 Hz), 8.92(1H, s).
11-8	δ 7.75(1H, s), 7.78(1H, t, J = 7.8 Hz), 7.94(1H, s), 8.17(1H, s), 8.29-8.30(1H, m), 8.50-8.52(1H, m), 8.78(1H, t, J = 2.0 Hz).
11-10	δ 7.77(1H, t, J = 8.3 Hz), 7.82(1H, s), 7.90(1H, s), 8.00(1H, s), 8.28-8.29(1H, m), 8.49-8.50(1H, m), 8.77(1H, broad-s).
11-11	δ 7.75-7.79(2H, m), 7.94(1H, s), 8.17(1H, d, J = 1.0 Hz), 8.28(1H, dd, J = 1.5, 7.8 Hz), 8.48-8.51(1H, m), 8.76-8.77(1H, m).
11-12	δ 7.76-7.80(2H, m), 7.97(1H, s), 8.28-8.30(1H, m), 8.37(1H, s), 8.49-8.52(1H, m), 8.78(1H, s).
11-15	APCI-MS m/z (M + 1): 607
11-16	APCI-MS m/z (M + 1): 655
11-19	δ 7.75-7.78(2H, m), 8.21(2H, s), 8.23-8.26(1H, m), 8.48-8.50(1H, m), 8.72(1H, t, J = 1.9 Hz).
11-23	δ 7.55-7.58(1H, m), 7.67(1H, broad-s), 7.70(2H, s), 7.92-7.95(2H, m).
11-24	δ 7.58(1H, t, J = 7.8 Hz), 7.66(1H, broad-s), 7.90(2H, s), 7.93(1H, dd, J = 1.5, 7.8 Hz), 7.98(1H, d, J = 7.8 Hz).
11-25	δ 7.58(1H, t, J = 8.3 Hz), 7.70(1H, d, J = 3.4 Hz), 7.93(1H, dd, J = 1.5, 6.3 Hz), 8.08-8.10(1H, m), 8.13(2H, s).
11-26	(DMSO-d ₆) δ 7.78(1H, t, J = 7.8 Hz), 7.94(1H, dd, J = 2.0, 7.8 Hz), 7.97(1H, s), 8.03(1H, s), 8.21(1H, dd, J = 2.0, 7.8 Hz), 11.10(1H, s).
11-27	δ 7.58-7.62(2H, m), 7.93-7.95(2H, m), 8.04(1H, dd, J = 1.5, 7.8 Hz), 8.10(1H, d, J = 1.5 Hz).
11-29	δ 7.52-7.61(2H, m), 7.89(2H, s), 7.94(1H, dd, J = 1.5, 8.3 Hz), 7.99(1H, d, J = 7.8 Hz).
11-30	δ 7.56-7.60(1H, m), 7.90-7.93(1H, m), 8.08-8.10(1H, m), 8.12(2H, s), 8.19(1H, s).
11-33	δ 7.49-7.61(3H, m), 7.80-7.96(3H, m).
11-38	δ 7.61(1H, t, J = 7.8 Hz), 7.67(1H, broad-s), 7.93-7.97(3H, m), 8.18(1H, broad-s).
11-39	δ 7.60(1H, t, J = 7.8 Hz), 7.76(1H, s), 7.94(1H, dd, J = 1.5, 7.8 Hz), 7.97(1H, s), 8.03(1H, dd, J = 1.5, 7.8 Hz), 8.39(1H, s).
11-42	δ 7.59(1H, t, J = 7.8 Hz), 7.66(1H, s), 7.93-7.97(3H, m), 8.17(1H, s).
11-43	δ 7.60-7.61(1H, m), 7.77(1H, s), 7.89-7.96(2H, m), 8.03-8.04(1H, m), 8.38(1H, s).
11-48	δ 7.56-7.61(1H, m), 7.73(1H, s), 7.88(1H, d, J = 1.5 Hz), 7.92-7.98(2H, m), 8.21(1H, s).
11-50	APCI-MS m/z (M + 1): 497
11-51	δ 7.51-7.55(1H, m), 7.90(2H, s), 8.16(1H, d, J = 11.7 Hz), 8.27-8.31(1H, m), 8.48(1H, t, J = 6.3 Hz).
11-52	δ 7.52-7.55(1H, m), 8.12-8.18(3H, m), 8.29-8.32(1H, m), 8.48-8.51(1H, m).
11-53	APCI-MS m/z (M + 1): 541
11-54	δ 7.53(1H, t, J = 8.3 Hz), 7.92(1H, d, J = 1.5 Hz), 8.10(1H, d, J = 1.5 Hz), 8.16(1H, d, J = 12.2 Hz), 8.29-8.30(1H, m), 8.47-8.51(1H, m).
11-56	δ 7.53-7.54(1H, m), 7.89(2H, s), 8.17(1H, d, J = 12.2 Hz), 8.29-8.30(1H, m), 8.48-8.49 (1H, m).
11-57	δ 7.51-7.55(1H, m), 8.12(2H, s), 8.18(1H, d, J = 12.2 Hz), 8.27-8.32(1H, m), 8.47-8.51 (1H, m).
11-60	δ 7.53(1H, t, J = 7.8 Hz), 7.60(1H, broad-s), 7.89(1H, d, J = 1.5 Hz), 8.07(1H, broad-d, J = 12.7 Hz), 8.29-8.30(1H, m), 8.43-8.47(1H, m).
11-65	δ 7.53(1H, t, J = 7.3 Hz), 7.93(1H, broad-s), 8.17-8.18(2H, m), 8.28-8.32(1H, m), 8.44-8.48(1H, m).
11-66	δ 7.51-7.55(1H, m), 7.97(1H, s), 8.23(1H, d, J = 12.2 Hz), 8.28-8.32(1H, m), 8.37(1H, s), 8.44-8.48(1H, m).
11-69	δ 7.53(1H, t, J = 7.8 Hz), 7.93(1H, s), 8.16(1H, s), 8.20(1H, d, J = 12.7 Hz), 8.30-8.31(1H, m), 8.43-8.47(1H, m).
11-70	δ 7.53-7.54(1H, m), 7.95(1H, s), 8.24-8.32(2H, m), 8.36(1H, s), 8.44-8.48(1H, m).
11-75	APCI-MS m/z (M + 1): 626
11-84	δ 7.47-7.50(1H, m), 7.92(2H, d, J = 5.9 Hz), 8.16(1H, s), 8.23-8.28(1H, m), 8.65-8.67(1H, m).
11-100	δ 7.52-7.81(2H, m), 7.89(1H, s), 8.00(1H, s), 8.25(1H, d, J = 8.3 Hz), 8.38(1H, d, J = 1.9 Hz).
11-101	APCI-MS m/z (M + 1): 683
11-121	δ 7.52-7.81(2H, m), 7.89(1H, s), 8.00(1H, s), 8.25(1H, d, J = 8.3 Hz), 8.38(1H, d, J = 1.9 Hz).
11-122	δ 7.80(1H, s), 7.96(1H, s), 8.12-8.14(1H, m), 8.18(1H, s), 8.36(1H, dd, J = 2.0, 8.3 Hz), 8.84(1H, d, J = 1.5 Hz).
11-136	δ 3.28(1/2*3H, s), 3.44(1/2*3H, s), 7.41(1/2*1H, t, J = 7.8 Hz), 7.71-7.76(2/2*1H, m), 7.84(1/2*1H, s), 7.93-7.95(1/2*1H, m), 7.98(1/2*1H, s), 8.07-8.09(2/2*1H, m), 8.14-8.16 (1/2*1H, m), 8.19(1/2*1H, s), 8.39-8.41(1/2*1H, m), 8.45-8.46(1/2*1H, m).
11-142	APCI-MS m/z (M + 1): 561
12-2	APCI-MS m/z (M + 1): 587
12-3	δ 5.39(2H, broad-s), 6.89-6.93(1H, m), 7.29-7.31(3H, m), 7.68(1H, s), 8.08(2H, s).
12-5	δ 3.89(2H, broad-s), 6.90-6.92(1H, m), 7.23-7.32(3H, m), 7.64(1H, s), 7.90(1H, s), 8.13(1H, s).
12-6	δ 3.89(2H, broad-s), 6.91-6.92(1H, m), 7.21-7.32(3H, m), 7.61(1H, s), 7.86(1H, s), 7.97(1H, s).
12-7	δ 3.89(2H, broad-s), 6.88-6.92(1H, m), 7.21-7.32(3H, m), 7.65(1H, s), 7.90(1H, s), 8.13(1H, d, J = 2.4 Hz).

TABLE 22-continued

compound number	¹ H-NMR (CDCl ₃ , ppm) or APCI-MS
12-8	δ3.89(2H, broad-s), 6.89-6.92(1H, m), 7.23-7.32(3H, m), 7.68(1H, s), 7.93(1H, s), 8.34-8.36(1H, m).
12-10	APCI-MS m/z (M + 1): 577
12-11	APCI-MS m/z (M + 1): 625
12-14	δ3.89(2H, broad-s), 6.89-6.91(1H, m), 7.17-7.31(3H, m), 7.53(1H, s), 8.18(2H, s).
12-25	δ3.91(2H, broad-s), 6.98-7.02(1H, m), 7.06-7.12(1H, m), 7.47-7.52(1H, m), 7.66(2H, s), 8.20(1H, d, J = 14.1 Hz).
12-26	δ3.93(2H, broad-s), 6.99-7.04(1H, m), 7.11(1H, t, J = 1.8 Hz), 7.47-7.49(1H, m), 7.91(1H, s), 8.14(1H, s), 8.28(1H, d, J = 14.6 Hz).
12-27	δ3.93(2H, broad-s), 6.99-7.04(1H, m), 7.08(1H, t, J = 7.8 Hz), 7.39-7.43(1H, m), 8.10(2H, s), 8.72(1H, d, J = 11.2 Hz).
12-29	δ3.92(2H, broad-s), 7.01-7.02(1H, m), 7.11(1H, t, J = 7.8 Hz), 7.49-7.53(1H, m), 7.89(1H, d, J = 1.5 Hz), 8.08(1H, d, J = 1.5 Hz), 8.21(1H, d, J = 14.1 Hz).
12-30	δ3.92(2H, broad-s), 6.99-7.04(1H, m), 7.11-7.12(1H, m), 7.48-7.52(1H, m), 7.86(2H, s), 8.22(1H, d, J = 14.1 Hz).
12-31	δ3.93(2H, broad-s), 7.02-7.03(1H, m), 7.11-7.12(1H, m), 7.50-7.54(1H, m), 8.10(2H, s), 8.22(1H, d, J = 13.7 Hz).
12-33	δ3.92(2H, broad-s), 6.99-7.04(1H, m), 7.11(1H, t, J = 7.8 Hz), 7.45-7.49(1H, m), 7.57(1H, broad-s), 7.87(1H, d, J = 2.0 Hz), 8.14(1H, d, J = 14.2 Hz).
12-37	δ3.93(2H, broad-s), 6.99-7.04(1H, m), 7.11(1H, t, J = 7.8 Hz), 7.47-7.49(1H, m), 7.91(1H, s), 8.14(1H, s), 8.28(1H, d, J = 14.6 Hz).
12-38	δ3.92(2H, broad-s), 7.02-7.04(1H, m), 7.11(1H, t, J = 7.8 Hz), 7.47-7.52(1H, m), 7.94(1H, s), 8.30-8.35(2H, m).
12-40	δ3.92(2H, broad-s), 7.02-7.03(1H, m), 7.11(1H, t, J = 7.8 Hz), 7.49-7.50(1H, m), 7.90(1H, s), 8.13(1H, s), 8.29(1H, d, J = 14, 6 Hz).
12-41	δ3.93(2H, broad-s), 7.02-7.03(1H, m), 7.11-7.13(1H, m), 7.47-7.51(1H, m), 7.92(1H, s), 8.31-8.34(2H, m).
12-46	δ3.92(2H, broad-s), 6.99-7.04(1H, m), 7.05-7.18(1H, m), 7.46-7.51(1H, m), 7.85(1H, broad-s), 8.17(1H, broad-s), 8.34(1H, d, J = 15.1 Hz).
12-53	APCI-MS m/z (M + 1): 546
12-63	δ4.35(2H, s), 6.92(1H, dd, J = 1.9, 8.3 Hz), 7.29(1H, d, J = 1.9 Hz), 7.60(1H, s), 7.79(1H, d, J = 8.3 Hz), 7.86(1H, s), 7.97(1H, s).
12-64	APCI-MS m/z (M + 1): 653
12-78	δ4.68(2H, broad-s), 7.17(1H, d, J = 9.3 Hz), 7.30(1H, s), 7.57(1H, d, J = 9.3 Hz), 7.64(1H, s), 7.87(1H, s), 7.98(1H, s).
12-79	δ4.68(2H, broad-s), 7.18(1H, dd, J = 1.9, 8.3 Hz), 7.29(1H, s), 7.52-7.55(1H, m), 7.68(1H, s), 7.92(1H, s), 8.14(1H, d, J = 1.5 Hz).
12-94	δ4.71(2H, broad-s), 7.35-7.39(1H, m), 7.40-7.44(1H, m), 7.92(1H, s), 8.12-8.15(2H, m).
12-107	δ3.24(3/4*3H, s), 3.37(1/4*3H, s), 3.80(2H, broad-s), 6.47(1/4*1H, d, J = 7.8 Hz), 6.54-6.57(1/4*1H, m), 6.78-6.84(5/4*1H, m), 6.86(3/4*1H, t, J = 2.0 Hz), 6.96(3/4*1H, d, J = 7.8 Hz), 7.23-7.27(3/4*1H, m), 7.79(1/4*1H, s), 7.94(3/4*1H, s), 8.00(1/4*1H, s), 8.15(3/4*1H, s).
13-1	APCI-MS m/z (M + 1): 601
13-2	APCI-MS m/z (M + 1): 697
13-4	δ2.91(3H, s), 3.95(1H, broad-s), 6.82-6.84(1H, m), 7.16-7.18(2H, m), 7.30-7.34(1H, m), 7.66(1H, s), 7.90(1H, s), 8.13(1H, s).
13-5	δ2.90(3H, s), 4.00(1H, broad-s), 6.82-6.83(1H, m), 7.15-7.17(2H, m), 7.32-7.33(1H, m), 7.65(1H, s), 7.86(1H, s), 7.97(1H, s).
13-6	δ2.91(3H, s), 3.97(1H, broad-s), 6.82(1H, dd, J = 2.4, 8.3 Hz), 7.15-7.17(2H, m), 7.29-7.34(1H, m), 7.66(1H, s), 7.91(1H, s), 8.14(1H, s).
13-7	δ2.91(3H, s), 3.98(1H, broad-s), 6.81-6.84(1H, m), 7.16-7.19(2H, m), 7.30-7.34(1H, m), 7.72(1H, broad-s), 7.93(1H, s), 8.34(1H, s).
13-8	APCI-MS m/z (M + 1): 591
13-9	APCI-MS m/z (M + 1): 639
13-12	APCI-MS m/z (M + 1): 531
13-26	δ2.93-2.95(3H, m), 4.13(1H, broad-s), 6.82-6.92(1H, m), 7.18(1H, t, J = 7.8 Hz), 7.37-7.41(1H, m), 7.69(2H, s), 8.19(1H, d, J = 14.1 Hz).
13-27	δ2.94-2.30(3H, m), 4.87-4.91(1H, m), 6.91(1H, t, J = 7.9 Hz), 7.18(1H, t, J = 7.9 Hz), 7.41(1H, t, J = 7.1 Hz), 7.87(2H, s), 8.20(1H, d, J = 13.5 Hz).
13-28	δ2.95(3H, s), 4.13-4.15(1H, m), 6.89-6.94(1H, m), 7.18-7.22(1H, m), 7.41-7.45(1H, m), 8.10(2H, s), 8.20(1H, d, J = 14.1 Hz).
13-30	δ2.95-2.96(3H, m), 4.15(1H, broad-s), 6.89-6.93(1H, m), 7.19(1H, t, J = 7.8 Hz), 7.40-7.44(1H, m), 7.89(1H, s), 8.08(1H, s), 8.20(1H, d, J = 14.1 Hz).
13-32	δ2.95(3H, s), 4.14(1H, broad-s), 6.91-6.92(1H, m), 7.17-7.21(1H, m), 7.39-7.43(1H, m), 7.85(2H, s), 8.21(1H, d, J = 14.1 Hz).
13-33	δ2.95(3H, s), 4.16(1H, broad-s), 6.91-6.92(1H, m), 7.20-7.21(1H, m), 7.41-7.45(1H, m), 8.09(2H, s), 8.21(1H, d, J = 14.1 Hz).
13-40	δ2.94(3H, s), 4.14(1H, broad-s), 6.88-6.93(1H, m), 7.18(1H, t, J = 7.8 Hz), 7.37-7.41 (1H, m), 7.90(1H, s), 8.13(1H, s), 8.27(1H, d, J = 14.6 Hz).
13-41	δ2.95(3H, s), 4.15(1H, broad-s), 6.90(1H, t, J = 8.2 Hz), 7.19(1H, t, J = 7.8 Hz), 7.40(1H, t, J = 7.8 Hz), 7.92(1H, s), 8.30(1H, s), 8.34(1H, s).
13-43	δ2.95(3H, s), 4.14(1H, broad-s), 6.88-6.99(1H, m), 7.18(1H, t, J = 7.3 Hz), 7.36-7.41 (1H, m), 7.89(1H, s), 8.12(1H, s), 8.28(1H, d, J = 14.6 Hz).
13-44	δ2.95-2.96(3H, m), 4.15(1H, broad-s), 6.91-6.93(1H, m), 7.19-7.20(1H, m), 7.38-7.42(1H, m), 7.92(1H, s), 8.32(1H, d, J = 14.1 Hz), 8.34(1H, s).
13-56	APCI-MS m/z (M + 1): 545
13-68	δ2.97(3H, s), 4.46(1H, broad-s), 6.89(1H, dd, J = 1.9, 8.3 Hz), 7.07(1H, d, J = 1.9 Hz), 7.65(1H, s), 7.80(1H, d, J = 8.3 Hz), 7.86(1H, s), 7.97(1H, s).

TABLE 22-continued

compound number	¹ H-NMR (CDCl ₃ , ppm) or APCI-MS
13-85	δ3.01(1/2*3H, s), 3.03(1/2*3H, s), 4.89(1/2*1H, s), 4.90(1/2*1H, s), 7.80(1H, dd, J = 1.5, 8.3 Hz), 7.21-7.22(1H, m), 7.54(1H, d, J = 8.3 Hz), 7.67(1H, s), 7.88(1H, s), 7.99(1H, s).
14-6	δ7.59(1H, d, J = 7.3 Hz), 7.90-7.93(2H, m), 8.14(1H, s), 8.20-8.24(1H, m), 9.60(1H, s).
15-68	δ2.64(3H, s), 3.79(1H, broad-s), 7.56-7.60(1H, m), 7.87-7.93(2H, m), 8.14-8.15(1H, m), 8.20-8.23(1H, m), 9.60(1H, s).
16-6	δ7.91(1H, s), 8.13(1H, s), 8.19(1H, s), 8.82(1H, s).
17-42	δ3.03(3H, s), 5.11-5.12(1H, m), 7.50(1H, s), 7.88(1H, s), 8.11(1H, s), 8.99(1H, s).
18-1	δ2.33(6H, s), 2.52(2H, t, J = 5.8 Hz), 3.51(2H, t, J = 5.8 Hz), 4.45(1H, broad-s), 5.54(1H, broad-s), 5.73(1H, broad-s), 6.81(1H, d, J = 8.3 Hz), 7.17-7.21(2H, m), 7.28-7.30(1H, m), 7.34(2H, s), 7.54-7.59(1H, m).
18-13	δ2.54-2.57(2H, m), 3.52-3.56(2H, m), 4.49(1H, broad-s), 5.54(1H, broad-s), 6.83-6.86(1H, m), 7.26-7.33(4H, m), 7.85(1H, s), 8.09(2H, s).
18-14	δ2.55-2.60(2H, m), 3.52(2H, t, J = 6.3 Hz), 4.62(1H, broad-s), 5.62(1H, broad-s), 6.46(1H, broad-s), 6.82-6.83(1H, m), 7.26-7.36(3H, m), 8.16(2H, s), 9.25(1H, s).
18-15	δ2.54-2.57 (2H, m), 3.53-3.56 (2H, m), 4.47(1H, broad-s), 5.38 (1H, broad-s), 5.59 (1H, broad-s), 6.84-6.85 (1H, m), 7.18-7.24 (2H, m), 7.31 (1H, t, J = 7.8 Hz), 7.73 (1H, s), 7.90 (1H, s), 8.13 (1H, s).
18-16	δ2.54-2.58(2H, m), 3.54-3.57(2H, m), 5.43(1H, broad-s), 5.59(1H, broad-s), 6.84-6.86(1H, m), 7.19-7.21(2H, m), 7.32(1H, t, J = 7.8 Hz), 7.78(1H, s), 7.93(1H, s), 8.34(1H, s), A proton assigned for NH is not detected.
18-20	δ2.56(2H, t, J = 6.3 Hz), 3.54(2H, t, J = 6.3 Hz), 4.60(1H, broad-s), 5.49(1H, broad-s), 5.60(1H, broad-s), 6.86-6.88(1H, m), 7.19-7.21(2H, m), 7.30-7.34(1H, m), 8.11(1H, d, J = 1.5 Hz), 8.28-8.29(2H, m).
18-33	δ2.55(2H, t, J = 5.8 Hz), 3.55(2H, t, J = 5.8 Hz), 4.50(1H, broad-s), 5.37(1H, broad-s), 5.58(1H, broad-s), 6.84(1H, dd, J = 2.4, 7.8 Hz), 7.17-7.20(2H, m), 7.28-7.32(1H, m), 7.72(1H, s), 7.89(1H, s), 8.12(1H, s).
18-42	δ2.36(6H, s), 2.57-2.60(2H, m), 3.54-3.57(2H, m), 4.64(1H, broad-s), 5.48(1H, broad-s), 5.61(1H, broad-s), 6.89-6.94(1H, m), 7.15(1H, t, J = 7.8 Hz), 7.35-7.39(3H, m), 7.84(1H, broad-d, J = 12.7 Hz).
18-43	δ2.55-2.60(2H, m), 3.54-3.56(2H, m), 4.60(1H, broad-s), 5.71-5.74(2H, m), 6.94-6.95(1H, m), 7.15(1H, t, J = 7.8 Hz), 7.40-7.41(1H, m), 7.66(2H, s), 8.23(1H, d, J = 13.6 Hz).
18-44	δ2.55-2.61(2H, m), 3.54-3.57(2H, m), 4.60(1H, broad-s), 5.69-5.74(2H, m), 6.90-6.98(1H, m), 7.16(1H, t, J = 7.8 Hz), 7.35-7.45(1H, m), 7.87(2H, s), 8.24(1H, d, J = 14.1 Hz).
18-45	δ2.59-2.62(2H, m), 3.55-3.59(2H, m), 4.64(1H, broad-s), 5.40(1H, broad-s), 5.55(1H, broad-s), 6.94(1H, t, J = 8.3 Hz), 7.18(1H, t, J = 8.3 Hz), 7.43-7.44(1H, m), 8.10(2H, s), 8.18-8.22(1H, m).
18-46	δ2.60(2H, t, J = 6.3 Hz), 3.57(2H, t, J = 6.3 Hz), 4.70(1H, broad-s), 5.42(1H, broad-s), 5.55(1H, broad-s), 6.95-6.97(1H, m), 7.17(1H, t, J = 7.8 Hz), 7.40-7.46(1H, m), 7.89(1H, d, J = 1.5 Hz), 8.07(1H, d, J = 1.5 Hz), 8.20(1H, d, J = 14.1 Hz).
18-47	δ2.58-2.62(2H, m), 3.56-3.58(2H, m), 4.65(1H, broad-s), 5.40(1H, broad-s), 5.55(1H, broad-s), 6.95-6.96(1H, m), 7.18(1H, t, J = 7.3 Hz), 7.38-7.42(1H, m), 7.57(1H, s), 7.86(1H, d, J = 2.0 Hz), 8.13(1H, d, J = 14.1 Hz).
18-48	δ2.58-2.61(2H, m), 3.55-3.59(2H, m), 4.60(1H, broad-s), 5.40(1H, broad-s), 5.60(1H, broad-s), 6.96-6.98(1H, m), 7.15-7.19(1H, m), 7.39-7.43(1H, m), 7.91(1H, s), 8.13(1H, s), 8.26(1H, d, J = 14.6 Hz).
18-49	δ2.59-2.62(2H, m), 3.57(2H, q, J = 5.9 Hz), 4.62(1H, broad-s), 5.42(1H, broad-s), 5.56(1H, broad-s), 6.94-6.98(1H, m), 7.17(1H, t, J = 7.8 Hz), 7.40-7.44(1H, m), 7.93(1H, broad-s), 8.30(1H, d, J = 14.6 Hz), 8.35(1H, d, J = 1.5 Hz).
18-50	δ2.58-2.63(2H, m), 3.57(2H, t, J = 6.3 Hz), 5.43(1H, broad-s), 5.55(1H, broad-s), 6.93-6.98(1H, m), 7.16(1H, t, J = 7.8 Hz), 7.38-7.42(1H, m), 7.89(1H, s), 8.12(1H, s), 8.27(1H, d, J = 14.6 Hz), A proton assigned for NH is not detected.
18-72	δ2.27(6H, s), 2.72(2H, t, J = 7.8 Hz), 3.57(2H, broad-s), 4.03(2H, t, J = 7.8 Hz), 5.40(1H, broad-s), 6.37(1H, broad-s), 6.38-6.41(1H, m), 6.56-6.59(1H, m), 6.64-6.65(1H, m), 6.83(1H, t, J = 7.8 Hz), 7.37(2H, s).
18-87	δ2.39-2.42(2H, m), 2.62(6H, s), 2.72-2.74(2H, m), 3.19-3.20(2H, m), 3.99-4.02(2H, m), 4.41(1H, broad-s), 5.80(1H, broad-s), 5.84(1H, broad-s), 6.41(1H, d, J = 7.8 Hz), 6.51-6.54(2H, m), 6.84-6.88(3H, m), 7.40(2H, s).
18-105	δ2.34(6H, s), 2.61-2.66(2H, m), 2.96(3H, s), 3.01(3H, s), 3.53-3.56(2H, m), 6.83(1H, dd, J = 2.4, 8.3 Hz), 7.16(1H, d, J = 1.8 Hz), 7.22(1H, s), 7.27-7.29(1H, m), 7.34(2H, s), 7.49(1H, s), A proton assigned for NH is not detected.
18-107	APCI-MS m/z (M + 1): 674
18-110	δ2.63-2.68(2H, m), 3.01(6H, s), 3.56(2H, t, J = 5.8 Hz), 3.90-3.91(1H, m), 6.97-6.99 (1H, m), 7.16(1H, t, J = 7.8 Hz), 7.37-7.41(1H, m), 7.93(1H, s), 8.32-8.36(2H, m).
18-111	δ2.66 (2H, t, J = 5.8 Hz), 2.99-3.01(6H, m), 3.54(2H, t, J = 5.8 Hz), 3.70(1H, broad-s), 6.87(1H, dd, J = 1.5, 7.8 Hz), 7.18-7.21(2H, m), 7.28-7.32(1H, m), 8.12(1H, d, J = 2.0 Hz), 8.30-8.31 (2H, m).
19-44	δ3.46(2H, t, J = 6.3 Hz), 3.77-3.81(2H, m), 4.74(1H, broad-s), 4.80-4.82(2H, m), 6.92-6.96(1H, m), 7.19(1H, t, J = 7.8 Hz), 7.44-7.49(1H, m), 7.86(2H, s), 8.17(1H, d, J = 13.6 Hz).
20-7	δ2.05(6H, s), 3.01(3H, s), 3.36-3.37(2H, m), 3.82-3.86(2H, m), 4.70(1H, broad-s), 6.90-6.91 (1H, m), 7.20-7.21 (1H, m), 7.32 (1H, s), 7.36 (2H, s), 7.80-7.82(1H, m).
20-9	δ3.01(3H, s), 3.36(2H, t, J = 6.3 Hz), 3.82-3.86(2H, m), 4.71(1H, broad-s), 6.95(1H, t, J = 7.8 Hz), 7.20(1H, t, J = 7.8 Hz), 7.47-7.53(1H, m), 7.86(2H, s), 8.16-8.19(1H, m).
20-35	δ2.30(6H, s), 3.10(3H, s), 3.58-3.62(2H, m), 3.67(2H, broad-s), 4.10-4.14(2H, m), 6.32-6.36(1H, m), 6.65-6.69(2H, m), 7.21(2H, s), A proton assigned for CONH is not detected.
20-36	δ3.10(3H, s), 3.74-3.78(4H, m), 4.18-4.22(2H, m), 6.44-6.48(1H, m), 6.62-6.73(2H, m), 7.74 (2H, s).
21-1	δ4.53(2H, broad-s), 6.81(1H, d, J = 8.3 Hz), 7.48(1H, d, J = 8.3 Hz), 7.63(1H, broad-s).
21-2	δ4.49(2H, broad-s), 6.81(1H, d, J = 8.3 Hz), 7.48(1H, d, J = 8.3 Hz), 7.64(1H, s).
21-3	δ4.49(2H, broad-s), 6.81(1H, d, J = 8.8 Hz), 7.47(1H, d, J = 8.8 Hz), 7.61(1H, s).

TABLE 22-continued

compound number	¹ H-NMR (CDCl ₃ , ppm) or APCI-MS
21-4	δ4.56(2H, broad-s), 6.79(1H, d, J = 8.8 Hz), 7.47(1H, d, J = 8.8 Hz), 7.53(1H, s).
21-6	δ5.08(2H, broad-s), 7.62(1H, s), 7.80(1H, s).
21-8	δ4.97(2H, broad-s), 7.57(1H, s), 7.64(1H, s).
21-9	δ5.03(2H, broad-s), 7.61(1H, s), 7.79(1H, s).
21-10	δ5.04(2H, broad-s), 7.64(1H, s), 7.99(1H, s).
21-13	δ5.03(2H, broad-s), 7.52(1H, s), 7.78(1H, s).
21-14	δ5.04(2H, broad-s), 7.62(1H, s), 7.97(1H, s).
21-19	δ5.14(2H, broad-s), 7.58(1H, s), 7.81(1H, s).
21-29	δ3.09-3.11(3H, m), 4.56(1H, broad-s), 7.79(1H, s), 7.82(1H, s).

The compound according to the present invention can effectively control, at a low concentration thereof, any pests such as insects including various so-called agricultural pests damaging agricultural/horticultural crops, trees, and the like, so-called domestic animal pests parasitic on birds grown in the houses for domestic animals, so-called insanitary pests adversely affecting the living environment of humans such as houses and the like in various manners, so-called wood-eating pests damaging wood such as buildings and the like, so-called stored grain pests damaging grain and the like stored in a warehouse, and mites, crustaceans, molluscs, and nematodes which are propagated and cause damage in a manner similar to that in the case of the insects.

Specific examples of the insects, the mites, the crustaceans, the molluscs and the nematodes which can be controlled using the compound according to the present invention include lepidopteran insects such as *Adoxophyes honmai*, *Adoxophyes orana faciatia*, *Archips breviplicanus*, *Archips fuscocupreanus*, *Grapholita molesta*, *Homona magnanima*, *Leguminivora glycinivorella*, *Matsumuraeses phaseoli*, *Pandemis heparana*, *Bucculatrix pyrivorella*, *Lyonetia clerkella*, *Lyonetia prunifoliella malinella*, *Caloptilia theivora*, *Phyllonorycter ringoniella*, *Phyllocnistis citrella*, *Acrolepiopsis sapporensis*, *Acrolepiopsis suzukiella*, *Plutella xylostella*, *Stathmopoda masinissa*, *Helcystogramma triannulella*, *Pectinophora gossypiella*, *Carpocapsa sasakii*, *Cydia pomonella*, *Chilo suppressalis*, *Cnaphalocrocis medinalis*, *Conogethes punctiferalis*, *Diaphania indica*, *Etiella zinckenella*, *Glyphodes pyloalis*, *Hellula undalis*, *Ostrinia furnacalis*, *Ostrinia scapularis*, *Ostrinia nubilalis*, *Parapediasia teterella*, *Parnara guttata*, *Pieris brassicae*, *Pieris rapae crucivora*, *Ascotis selenaria*, *Pseudoplusia includens*, *Euproctis pseudoconsersa*, *Lymantria dispar*, *Orgyia thyellina*, *Hyphantria cunea*, *Lemyra imparilis*, *Adris tyrannus*, *Aedia leucomelas*, *Agrotis ipsilon*, *Agrotis segetum*, *Autographa nigrisigna*, *Ctenoplusia agnata*, *Helicoverpa armigera*, *Helicoverpa assulta*, *Helicoverpa zea*, *Heliothis virescens*, *Mamestra brassicae*, *Mythimna separata*, *Naranga aeneascens*, *Spodoptera eridania*, *Spodoptera exigua*, *Spodoptera frugiperda*, *Spodoptera littoralis*, *Spodoptera litura*, *Spodoptera depravata*, *Trichoplusia ni*, *Endopiza viteana*, *Manduca quinquemaculata*, *Manduca sexta*, and the like,

Thysanopteran insects such as *Frankliniella intonsa*, *Frankliniella occidentalis*, *Heliothrips haemorrhoidalis*, *Scirtothrips dorsalis*, *Thrips palmi*, *Thrips tabaci*, *Ponticulothrips diospyrosi*, and the like,

Hemipteran insects such as *Dolycoris baccarum*, *Eurydema rugosum*, *Eysarcoris aeneus*, *Eysarcoris lewisi*, *Eysarcoris ventralis*, *Glaucias subpunctatus*, *Halyomorpha halys*, *Nezara antennata*, *Nezara viridula*, *Piezodorus hybneri*, *Plautia crossota*, *Scotinophora lurida*, *Cletus punctiger*, *Lep-tocoris chinensis*, *Riptortus clavatus*, *Rhopalus msculatus*, *Cavelerius saccharivorus*, *Togo hemipterus*, *Dysdercus cin-*

gulatus, *Stephanitis pyrioides*, *Halticus insularis*, *Lygus lineolaris*, *Stenodema sibiricum*, *Stenotus rubrovittatus*, *Trigonotylus caelestialium*, *Arboridia apicalis*, *Balclutha saltuella*, *Epiacanthus stramineus*, *Empoasca fabae*, *Empoasca nipponica*, *Empoasca onukii*, *Empoasca sakaii*, *Macrostelus striifrons*, *Nephotettix cincticeps*, *Psuedatomoscelis seriatus*, *Laodelphax striatella*, *Nilaparvata lugens*, *Sogatella furcifera*, *Diaphorina citri*, *Psylla pyrisuga*, *Aleurocanthus spiniferus*, *Bemisia argentifolii*, *Bemisia tabaci*, *Dialeurodes citri*, *Trialeurodes vaporariorum*, *Viteus vitifolii*, *Aphis gossypii*, *Aphis spiraeicola*, *Myzus persicae*, *Toxoptera aurantii*, *Drosicha corpulenta*, *Icerya purchasi*, *Phenacoccus solani*, *Planococcus citri*, *Planococcus kuraunhae*, *Pseudococcus comstocki*, *Ceroplastes ceriferus*, *Ceroplastes rubens*, *Aonidiella aurantii*, *Comstockaspis perniciosus*, *Fiorinia theae*, *Pseudaonidia paeoniae*, *Pseudaulacaspis pentagona*, *Pseudaulacaspis prunicola*, *Unaspis euonymi*, *Unaspis yanonensis*, *Cimex lectularius*, and the like,

Coleopteran insects such as *Anomala cuprea*, *Anomala rufocuprea*, *Gametis jucunda*, *Heptophylla picea*, *Popillia japonica*, *Lepinotarsa decemlineata*, *Melanotus fortnumi*, *Melanotus tamsuyensis*, *Lasioderma serricornis*, *Epuraea domina*, *Lyctus brunneus*, *Rhizophora dominica*, *Epilachna varivestis*, *Epilachna vigintioctopunctata*, *Tenebrio molitor*, *Tribolium castaneum*, *Anoplophora malasiaca*, *Monochamus alternatus*, *Psacothia hilaris*, *Xylotrechus pyrrhoderus*, *Callosobruchus chinensis*, *Aulacophora femoralis*, *Chaetocnema concinna*, *Diabrotica undecimpunctata*, *Diabrotica virgifera*, *Diabrotica barberi*, *Oulema oryzae*, *Phyllotreta striolata*, *Psylliodes angusticollis*, *Rhynchites heros*, *Cylas formicarius*, *Anthonomus grandis*, *Echinocnemus squameus*, *Eusecepes postfasciatus*, *Hypera postica*, *Lissophotus oryzo-philus*, *Otiorynchus sulcatus*, *Sitophilus granarius*, *Sitophilus zeamais*, *Sphenophorus venatus vestitus*, *Paederus fuscipes*, and the like,

Dipterous insects such as *Asphondylia yushimai*, *Sitodiplosis mosellana*, *Bactrocera cucurbitae*, *Bactrocera dorsalis*, *Ceratitis capitata*, *Hydrellia griseola*, *Drosophila suzukii*, *Agromyza oryzae*, *Chromatomyia horticola*, *Liriomyza bryoniae*, *Liriomyza chinensis*, *Liriomyza sativae*, *Liriomyza trifolii*, *Delia platura*, *Pegomya cunicularia*, *Rhagoletis pomonella*, *Mayetiola destructor*, *Musca domestica*, *Stomoxys calcitrans*, *Melophagus ovinus*, *Hypoderma bovis*, *Hypoderma lineatum*, *Oestrus ovis*, *Glossina palpalis*, *Glossina morsitans*, *Prosimulium yezoensis*, *Tabanus trigonus*, *Telmatoscopus albipunctatus*, *Leptoconops nipponensis*, *Culex pipiens pallens*, *Aedes aegypti*, *Aedes albopictus*, *Anopheles hyrcanus sinensis*, and the like,

Hymenopteran insects such as *Apethymus kuri*, *Athalia rosae*, *Arge pagana*, *Neodiprion sertifer*, *Dryocosmus kuriphilus*, *Eciton burchelli*, *Eciton schmitti*, *Camponotus japonicus*, *Vespa mandarina*, *Myrmecia* spp., *Solenopsis* spp., *Monomorium pharaonis*, and the like;

Orthopteran insects such as *Teleogryllus emma*, *Gryllo-talpa orientalis*, *Locusta migratoria*, *Oxya yezoensis*, *Schistocerca gregaria*, and the like;

Collembolan insects such as *Onychiurus folsomi*, *Onychiurus sibiricus*, *Bourletiella hortensis*, and the like;

Dictyopteran insects such as *Periplaneta fuliginosa*, *Periplaneta japonica*, *Blattella germanica*, and the like;

Isopterous insects such as *Coptotermes formosanus*, *Reticulitermes speratus*, *Odontotermes formosanus*, and the like;

Isopterous insects such as *Ctenocephalidae felis*, *Ctenocephalides canis*, *Echidnophaga gallinacea*, *Pulex irritans*, *Xenopsylla cheopis*, and the like;

Mallophaga insects such as *Menacanthus stramineus*, *Bovicola bovis*, and the like;

Anoplura insects such as *Haematopinus eurysternus*, *Haematopinus suis*, *Linognathus vituli*, *Solenopotes capillatus*, and the like;

Tarsonemidae such as *Phytonemus pallidus*, *Polyphagotarsonemus latus*, *Tarsonemus bilobatus*, and the like;

Eupodidae such as *Penthaeus erythrocephalus*, *Penthaeus major*, and the like;

Tetranychidae such as *Oligonychus shinkajii*, *Panonychus citri*, *Panonychus mori*, *Panonychus ulmi*, *Tetranychus kan-zawai*, *Tetranychus urticae*, and the like;

Eriophyidae such as *Acaphylla theavagrans*, *Aceria tulipae*, *Aculops lycopersici*, *Aculops pelekassi*, *Aculus schlech-tendali*, *Eriophyes chibaensis*, *Phyllocoptruta oleivora*, and the like;

Acaridae such as *Rhizoglyphus robini*, *Tyrophagus putres-centiae*, *Tyrophagus similis*, and the like;

Varroidae such as *Varroa jacobsoni* and the like;

Ixodidae such as *Boophilus microplus*, *Rhipicephalus sanguineus*, *Haemaphysalis longicornis*, *Haemaphysalis flava*, *Haemaphysalis campanulata*, *Ixodes ovatus*, *Ixodes persul-catus*, *Amblyomma* spp., *Dermacentor* spp., and the like;

Cheyletidae such as *Cheyletiella yasguri*, *Cheyletiella blakei*, and the like;

Demodicidae such as *Demodex canis*, *Demodex cati*, and the like;

Psoroptidae such as *Psoroptes ovis* and the like;

Sarcoptidae such as *Sarcoptes scabiei*, *Notoedres cati*, *Knemidocoptes* spp., and the like;

Crustacea such as *Armadillidium vulgare* and the like;

Gastropoda such as *Pomacea canaliculata*, *Achatina fulica*, *Meghimatium bilineatum*, *Limax Valentiana*, *Acusta despecta sieboldiana*, *Euhadra peliomphala*, and the like; and

Nematoda such as *Prathylenchus coffeae*, *Prathylenchus penetrans*, *Prathylenchus vulnus*, *Globodera rostochiensis*, *Heterodera glycines*, *Meloidogyne hapla*, *Meloidogyne incognita*, *Aphelenchoides besseyi*, *Bursaphelenchus xylo-philus*, and the like, but the present invention is not limited thereto.

Furthermore, the compound according to the present invention is also effective against pests having a developed resistance to existing pesticides such as organic phosphorous compounds, carbamate compounds, pyrethroid compounds, and the like.

Furthermore, the compound according to the present invention exerts an excellent control effect when used in combination with other agricultural/horticultural pesticides, miticides, nematocides, fungicides, herbicides, plant growth regulators, biological agricultural chemicals, or the like.

The pest control agent having the compound according to the present invention as an active ingredient has a significant control effect against the above-described harmful crops which damage lowland crops, upland crops, fruit trees, veg-

etables, and other crops and ornamental flowers, and there-fore, the effect as a pest control agent according to the present invention can be obtained by treating the paddy field water, plant stems and leaves, or soil of the crops of lowland, upland, fruit trees, vegetables, other crops, ornamental flowers, and the like during the seasons in which the appearance of such pests is expected, or before or at the point when the pest appearance is observed.

The pest control agent having the compound according to the present invention as an active ingredient has a significant control effect against stored grain pests and the like propa-gated during storage of the harvest. That is, the pest control agent having the compound according to the present inven-tion as an active ingredient may be subjected to a treatment after the harvest (post harvest) such as spray-spreading, coat-ing, dipping, dressing, fumigation/smoking, pressurized injection, and the like with respect to the harvest or the place for storage of the harvest.

Further, the pest control agent having the compound according to the present invention as an active ingredient can be applied to plant seeds to prevent the damage caused by pests generated in the plants after seeding. That is, the pest control agent having the compound according to the present invention as an active ingredient may be subjected to a treat-ment such as spray-spreading, dipping, dressing, and the like on the plant seeds in an effective amount for controlling the pests as it is, as an adequate dilution with water or the like, or as a suspension to bring the compound according to the present invention into contact with the plant seeds.

The plant seeds refer to those used for breeding in agricul-ture by storing the nutrients for seedling germination, and examples thereof include seeds such as corn, soybeans, red beans, cotton, rice, sugar beet, wheat, barley, sunflower, tomato, cucumber, eggplant, spinach, string beans, squash, sugarcane, tobacco, pimento, canola, and the like, seed tubers such as taro, potato, sweet potato, konjac, and the like, bulbs such as edible lily, tulips, and the like, and seed balls such as rakkyo and the like.

The pest control agent having the compound according to the present invention as an active ingredient has a significant control effect against insanitary pests such as Dipterous pests (*Culex pipiens*, *Culex plumosus*, *Musca domestica*, *Psychod-idae*, *Tabanus trigonus*, and the like) Dictyoptera pests (*Blat-tella germanica*, *Periplaneta fuliginosa*, *Periplaneta ameri-cana*, and the like), and other pests.

The pest control agent having the compound according to the present invention as an active ingredient has a significant control effect against wood-feeding pests such as Termidae, *Lyctus brunneus*, *Rhizophorthera dominica*, *Anobiidae*, *Ceram-bycidae*, and the like, thus, the above-described wood-feed-ing pests can be controlled by treatment of wood, soil, build-ings, and the like with the pest control agent.

The pesticide according to the present invention generally may be used after being Formulated into the shape convenient for use according to a conventional method for preparation of agricultural/horticultural chemicals. That is, the compound represented by the Formula (1) may be optionally blended with adjuvants at appropriate proportions in a suitable inert carrier, and then subjected to dissolution, separation, suspen-sion, mixing, impregnation, adsorption, or adhesion, thereby being Formulated to a suitable form, for example, suspension concentrates, emulsifiable concentrates, soluble concen-trates, wettable powder, granules, dustable powders, tablets, oils, aerosol agents, smokes, liquefied carbon dioxide Formu-lations, baits, resin Formulations, or the like, and then used.

The inert carrier which can be used in the present invention may be solids or liquids, and examples of the inert carrier for

solids include soybean powders, grain powders, wood powders, bark powders, sawdust powders, tobacco stem powders, walnut shell powders, brans, cellulose powders, residues from plant extraction, synthetic polymers such as pulverized synthetic resins, clays (for example, kaolin, bentonite, acidic white clay), talcs (for examples, talc, pyrophyllite, etc.), silica (for examples, diatomaceous earth, sand, mica, white carbon [hydrous silica powders, synthetic high dispersity silicates called hydrous silicate, there are also products containing calcium silicate as a main component]), activated carbon, sulfur powder, pumice, calcined diatomaceous powders, pulverized bricks, fly ash, sand, inorganic mineral powders such as calcium carbonate, calcium phosphate, and the like, chemical fertilizers such as ammonium sulfate, ammonium phosphate, ammonium nitrate, urea, ammonium chloride, and the like, a compost, and others, which are used alone or as a mixture of two or more kinds thereof.

Materials which can be used as the inert carrier for liquids are selected from those having the function as a solvent, as well as those capable of dispersing the active ingredient compound with the aid of an adjuvant even if the inert carrier does not have a function as a solvent. Representative examples thereof include the carriers listed below: water, alcohols (for example, methanol, ethanol, isopropanol, butanol, ethylene glycol, and the like), ketones (for example, acetone, methyl ethyl ketone, methyl isobutyl ketone, diisobutylketone, cyclohexanone, and the like), ethers (for example, diethyl ether, dioxane, cellosolve, diisopropyl ether, tetrahydrofuran, and the like), aliphatic hydrocarbons (for example, kerosene, mineral oil, and the like), aromatic hydrocarbons (for example, benzene, toluene, xylene, solvent naphtha, alkyl naphthalene, and the like), halogenated hydrocarbons (for example, dichloromethane, chloroform, tetrachlorocarbon, chlorobenzene, and the like), esters (for example, ethyl acetate, butyl acetate, ethyl propionate, diisobutyl phthalate, dibutyl phthalate, dioctyl phthalate, and the like), amides (for example, dimethyl formamide, diethyl formamide, dimethyl acetamide, and the like), and nitriles (for example, acetonitrile, and the like), which are used alone or as mixtures of two or more kinds thereof.

Examples of the adjuvant include typical adjuvants mentioned below. These adjuvants can be used depending on purposes and used alone or in combination of two or more kinds thereof or may not be used at all in some cases.

To emulsify, disperse, dissolve and/or wet a compound as an active ingredient, a surfactant is used. Examples thereof include surfactants such as polyoxyethylene alkyl ethers, polyoxyethylene alkylaryl ethers, polyoxyethylene higher fatty acid esters, polyoxyethylene resins, polyoxyethylene sorbitan monolaurate, polyoxyethylene sorbitan monooleate, alkylarylsulfonates, naphthalenesulfonates, lignin sulfonates, higher alcohol sulfate esters, and the like.

Furthermore, to stabilize the dispersion of a compound as an active ingredient, adhere it, and/or bind it, the following adjuvants can be used. Examples thereof include casein, gelatin, starch, methyl cellulose, carboxymethyl cellulose, gum Arabic, polyvinyl alcohols, pine oil, bran oil, bentonite, Xanthan gum, lignin sulfonates, and the like.

In order to improve the fluidity of a solid product, the following adjuvants can be used. For example, adjuvants such as waxes, stearates, alkyl phosphates, and the like can be used. Adjuvants such as naphthalenesulfonic acid condensation

products, condensed phosphates, and the like may be used as a peptizer for suspendible products. As a defoaming agent, adjuvants such as silicon oils and the like can also be used.

Incidentally, the compound represented by the Formula (1) according to the present invention is stable to light, heat, oxidation, and the like. However, an anti-oxidant or an ultraviolet absorber, for example, a phenol derivative such as BHT (2,6-di-*t*-butyl-4-methylphenol) and BHA (butylated hydroxyanisole), a bisphenol derivative or arylamines such as phenyl- α -naphthylamine, phenyl- β -naphthylamine, condensates of phenetidine and acetone, and the like, or a stabilizer such as a benzophenone-based compound may be added in a suitable amount when necessary, whereby it is possible to obtain a composition with much stabilized effect.

The amount of the active ingredient of the compound represented by the Formula (1) according to the present invention is usually 0.5% by weight to 20% by weight for dustable powders, 5% by weight to 50% by weight for emulsifiable concentrates, 10% by weight to 90% by weight for wettable Formulations, 0.1% by weight to 20% by weight for granules, or 10% by weight to 90% by weight for flowable Formulations. The amount of the carrier in each form is usually 60% by weight to 99% by weight for dustable powders, 40% by weight to 95% by weight for emulsifiable concentrates, 10% by weight to 90% by weight for wettable powders, 80% by weight to 99% by weight for granules, or 10% by weight to 90% by weight for flowable Formulations. Further, the amount of the adjuvant is usually 0.1% by weight to 20% by weight for dustable powders, 1% by weight to 20% by weight for emulsifiable concentrates, 0.1% by weight to 20% by weight for wettable powders, 0.1% by weight to 20% by weight for granules, or 0.1% by weight to 20% by weight for flowable Formulations.

In order to control various pests, an amount effective for blight control can be applied as it is or as an adequate dilution with water or the like, or as a suspension, to the crops on which appearance of the corresponding pests is expected or to places where such occurrence is not preferable. The amount of use depends on various factors such as, for example, the purpose, the pest to be controlled, the state of plant growth, trends in pest appearance, climate, environmental conditions, Formulation, method of use, place of use, timing of use, and the like, but it is preferable to use the active ingredient in the concentration of 0.0001 ppm to 5000 ppm, and preferably 0.01 ppm to 1000 ppm. The dose that can be used per 10 a is generally in the range of 1 g to 300 g of the active ingredient.

The disclosure of Japanese Patent Application No. 2008-200114 is incorporated herein by reference in its entirety.

All literature, patent applications, and technical specifications cited in the present specification are herein incorporated by reference as if each such individual piece of literature, patent application, and technical specification were specifically and individually indicated to be incorporated herein by reference.

EXAMPLES

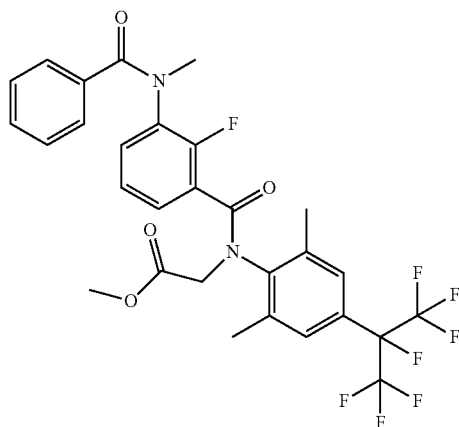
Representative Examples according to the present invention will be described with reference to the following Examples, but the present invention is not limited thereto. In the present Examples, DMF represents N,N-dimethyl formamide, THF represents tetrahydrofuran, IPE represents isopropyl ether, DMSO represents dimethyl sulfoxide, DMI represents 1,3-dimethyl-2-imidazolidinone, CDI represents

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carbonyldiimidazole, and PDC represents pyridinium dichromate. Further, “%” is based on mass unless specified otherwise.

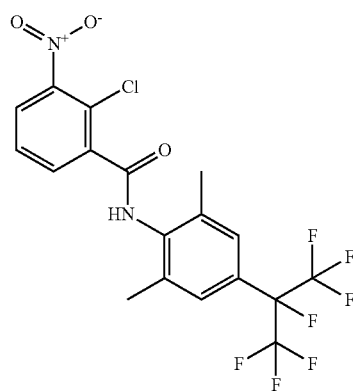
Example 1

Preparation of methyl 2-(N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-2-fluoro-3-(N-methylbenzamide)benzamide)acetate (Compound No. 7-221)



1-1

Preparation of 2-chloro-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-3-nitrobenzamide



To a solution obtained by adding 2.50 g of 2-chloro-3-nitrobenzoic acid and 5 droplets of DMF to 30 ml of toluene was charged 1.62 g (13.7 mmol) of thionyl chloride, followed by heating and stirring at 80° C. for 2 hours. Then, the solvent was evaporated under reduced pressure, and the obtained crude carboxylic acid chloride was dissolved in 10 ml of THF. This was charged dropwise to a solution obtained by adding 3.24 g (11.2 mmol) of 2,6-dimethyl-4-(perfluoropropan-2-yl)aniline and 1.77 g (22.4 mmol) of pyridine to 20 ml of THF at room temperature, followed by stirring for 5 hours. Ethyl acetate and water were added to the reaction solution, a liquid separation operation was carried out, and the organic layer was collected by separation and dried over anhydrous magnesium sulfate. This solution was filtered, the filtrate was

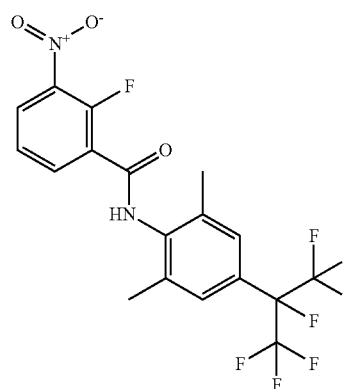
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evaporated under reduced pressure, and the obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=4:1) to prepare 3.38 g (yield 64%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 2.42 (6H, s), 7.34 (1H, s), 7.37 (1H, s), 7.55 (1H, t, J=7.8 Hz), 7.80 (1H, dd, J=1.5 Hz, 7.8 Hz), 7.86 (1H, dd, J=1.5 Hz, 7.8 Hz), 9.58 (1H, s)

1-2

Preparation of N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-2-fluoro-3-nitrobenzamide



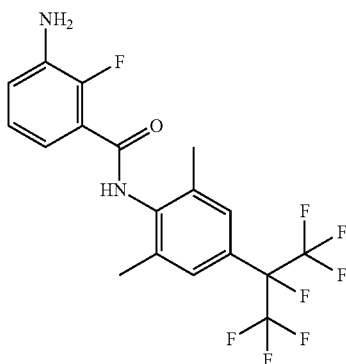
2.35 g (4.97 mmol) of 2-chloro-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-3-nitrobenzamide and 0.870 g (15.0 mmol) of potassium fluoride (spray-dried product) were added to 25 ml of DMF dried over molecular sieves, followed by heating and stirring at 150° C. for 3 hours. After returning to room temperature, ethyl acetate and water were added to the reaction solution, a liquid separation operation was carried out, and then the organic layer was collected by separation, washed with water twice, and then dried over anhydrous magnesium sulfate. This solution was filtered, the filtrate was collected, the solvent was evaporated under reduced pressure, and the obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=4:1) to prepare 1.02 g (yield 45%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 2.37 (6H, s), 7.39 (2H, s), 7.48-7.53 (1H, m), 7.87 (1H, d, J=11.5 Hz), 8.23-8.28 (1H, m), 8.42-8.46 (1H, m).

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1-3

Preparation of 3-amino-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide

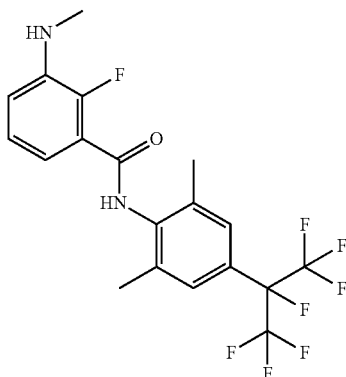


11.3 g (5.15 mmol) of N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-2-fluoro-3-nitrobenzamide and 14.5 g (76.5 mmol) of stannic chloride were charged to 56 ml of ethanol, and 12.5 ml of concentrated hydrochloric acid was added dropwise thereto. After stirring at 60° C. for 1.5 hours, the mixture was cooled to room temperature. The mixture was discharged to 280 ml of water, and 200 ml of acetic acid was charged thereto, followed by neutralization with sodium hydroxide. The precipitated precipitate was filtered through Celite, and then washed with ethyl acetate, and the filtrate was subjected to liquid separation. The organic layer was dried over anhydrous magnesium sulfate, and the solvent was evaporated under reduced pressure. The obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=5:1) to prepare 5.80 g (yield: 55%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 2.37 (6H, s), 3.90 (2H, broad-s), 6.96-7.01 (1H, m), 7.10 (1H, t, J=7.8 Hz), 7.36 (2H, s), 7.43-7.47 (1H, m), 7.86 (1H, d, J=13.2 Hz)

1-4

Preparation of N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-2-fluoro-3-(methylamino)benzamide



5.80 g (13.6 mmol) of 3-amino-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide was charged

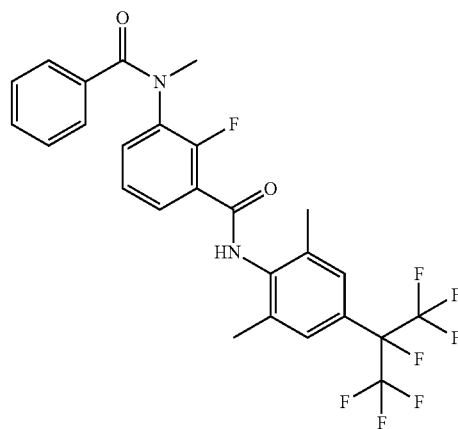
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to 34.8 ml of concentrated sulfuric acid and dissolved. 17.4 ml of a 37% aqueous formaldehyde solution was added dropwise thereto over 1 hour while maintaining the internal temperature at 30° C. to 40° C. After stirring at 40° C. for 3 hours, the mixture was discharged to 200 ml of ice-water, and extracted with 100 ml of ethyl acetate three times, and the organic layer was washed with 100 ml of a 1 N aqueous sodium hydroxide solution three times and dried over anhydrous magnesium sulfate. The solvent was evaporated under reduced pressure. The obtained residue was washed with IPE to prepare 4.49 g (yield: 75%) of a target compound.

¹H-NMR (DMSO-d₆, ppm) δ 2.32 (6H, s), 2.76 (3H, d, J=4.9 Hz), 5.84 (1H, broad-s), 6.77-6.81 (2H, m), 7.10 (1H, t, J=7.8 Hz), 7.43 (2H, s), 9.90 (1H, s).

1-5

Preparation of N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-2-fluoro-3-(N-methylbenzamide)benzamide



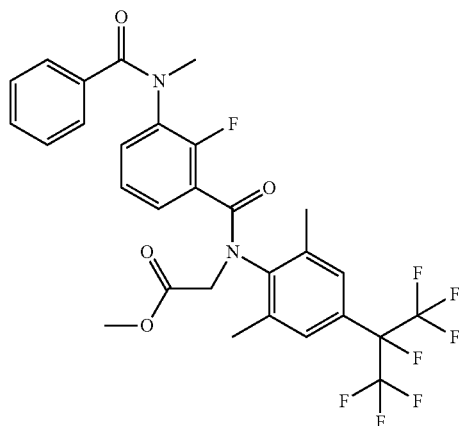
4.49 g (10.2 mmol) of N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-2-fluoro-3-(methylamino)benzamide and 0.920 g (11.6 mmol) of pyridine were charged to 22 ml of THF, and 1.54 g (10.9 mmol) of benzoyl chloride was added thereto, followed by stirring at room temperature for 3 hours. A saturated aqueous sodium hydrogen carbonate solution was added thereto, followed by extraction with ethyl acetate, and then washing with 5% hydrochloric acid. After drying over anhydrous magnesium sulfate, the solvent was evaporated under reduced pressure and the obtained residue was washed with IPE to prepare 5.00 g (yield: 90%) of a target compound.

¹H-NMR (DMSO-d₆, ppm) δ 2.28 (6H, s), 3.36 (3H, s), 7.27-7.32 (6H, m), 7.43 (2H, s), 7.55-7.57 (2H, broad-s), 9.96 (1H, s).

373

1-6

Preparation of methyl 2-(N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-2-fluoro-3-(N-methylbenzamide)benzamide)acetate (Compound No. 7-221)

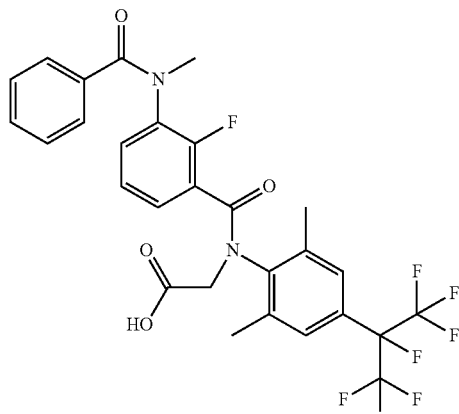


0.240 g (6.06 mmol) of 60% sodium hydride was charged to 10 ml of DMF, and 3.00 g (5.51 mmol) of N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-2-fluoro-3-(N-methylbenzamide)benzamide dissolved in 8 ml of DMF was added dropwise thereto at room temperature. After stirring at room temperature for 2 hours, 1.86 g (12.1 mmol) of methyl bromoacetate was added thereto, followed by stirring at 60° C. for 3 hours. After cooling to room temperature, water was added thereto, followed by extraction with ethyl acetate. After drying over anhydrous magnesium sulfate, the solvent was evaporated under reduced pressure and the obtained residue was purified by column chromatography (developing solvent; hexane:ethyl acetate=10:1→7:3→1:1) to prepare 3.05 g (yield 90%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 2.37 (6H, broad-s), 3.05 (3H, s), 3.81 (3H, s), 4.25 (1H, broad-s), 4.40 (1H, broad-s), 6.80-6.89 (2H, m), 7.15-7.37 (8H, m).

Example 2

Preparation of 2-(N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-2-fluoro-3-(N-methylbenzamide)benzamide)acetic acid (Compound No. 7-222)



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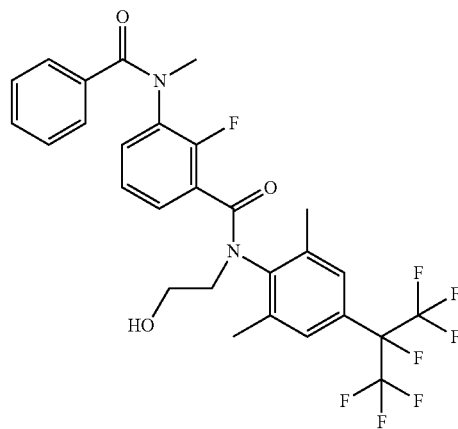
2.00 g (3.25 mmol) of methyl 2-(N(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-2-fluoro-3-(N-methylbenzamide)benzamide)acetate obtained in 1-6 of Example 1 was charged to 10 ml of methanol, and 0.520 g (13.0 mmol) of sodium hydroxide and 5 ml of water were added thereto, followed by stirring for 2 hours. The mixture was discharged to water and washed with ethyl acetate, and then the aqueous layer was adjusted to pH 1 with concentrated hydrochloric acid. After extraction with ethyl acetate, the resultant was washed with saturated brine and dried over anhydrous magnesium sulfate. The solvent was evaporated under reduced pressure to prepare 1.00 g (yield: 51%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 2.47 (6H, broad-s), 3.06 (3H, s), 4.38 (2H, broad-s), 6.81-6.89 (2H, m), 7.14-7.52 (8H, m).

The proton presumed to be indicative of the carboxylic acid was not detected.

Example 3

Preparation of N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-2-fluoro-N-(2-hydroxyethyl)-3-(N-methylbenzamide)benzamide (Compound No. 7-23)



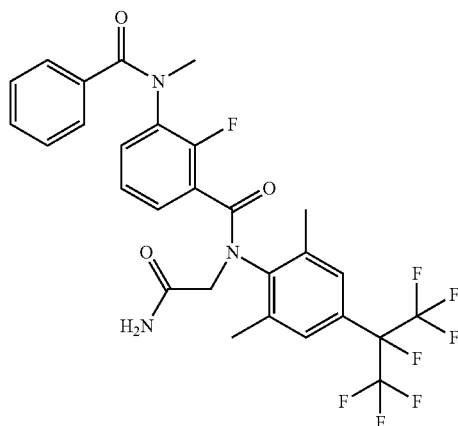
1.40 g (2.27 mmol) of methyl 2-(N(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-2-fluoro-3-(N-methylbenzamide)benzamide)acetate obtained in 1-6 of Example 1 was charged to 4 ml of ethanol, and 0.100 g (2.73 mmol) of sodium borohydride was added thereto at room temperature. After stirring at room temperature for 1 hour, 0.100 g (2.73 mmol) of sodium borohydride was added thereto, followed by stirring for 2 hours. 0.100 g (2.73 mmol) of sodium borohydride was further added thereto, followed by stirring at room temperature for 1 hour, and then water was added thereto. Table salt was added thereto, followed by extraction with ethyl acetate and drying over anhydrous magnesium sulfate. The solvent was evaporated under reduced pressure and the obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=7:3→1:1→1:2→0:1) to prepare 0.900 g (yield: 67%) of a target compound.

375

¹H-NMR (CDCl₃, ppm) δ 2.34 (6H, broad-s), 3.08 (3H, s), 3.20-3.22 (1H, m), 3.47 (1H, broad-s), 3.89 (2H, broad-s), 6.79-6.83 (1H, m), 6.88-6.89 (1H, m), 7.06-7.35 (9H, m).

Example 4

Preparation of N-(2-amino-2-oxoethyl)-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-2-fluoro-3-(N-methylbenzamide)benzamide (Compound No. 7-220)

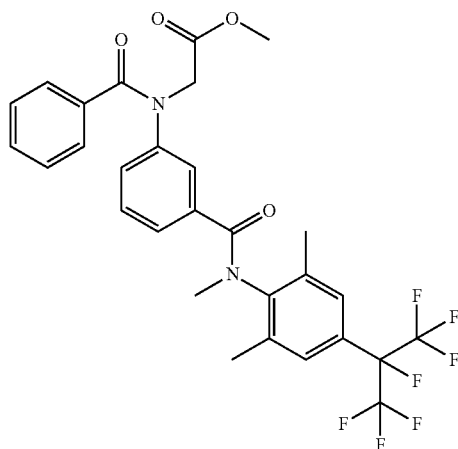


According to the method of 1-6 of Example 1, a target compound was prepared from N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-2-fluoro-3-(N-methylbenzamide)benzamide obtained in 1-5 of Example 1 and 2-chloroacetic acid amide.

¹H-NMR (CDCl₃, ppm) δ 2.44 (6H, broad-s), 3.13 (3H, s), 4.45 (1H, broad-s), 5.77 (1H, broad-s), 6.79-7.04 (6H, m), 7.15-7.34 (6H, m).

Example 5

Preparation of methyl 2-(N-(3((2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)(methyl)carbamoyl)phenyl)benzamide)acetate (Compound No. 6-1)

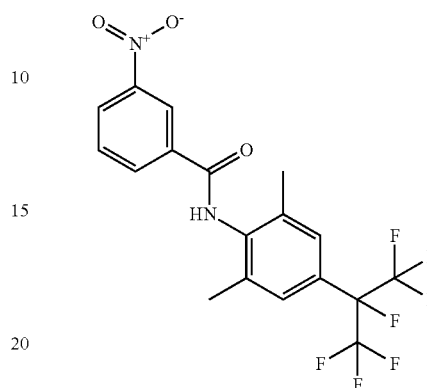


376

5-1

Preparation of N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-3-nitrobenzamide

5



20.0 g (69.2 mmol) of 2,6-dimethyl-4-(perfluoropropan-2-yl)aniline and 11.0 g (139 mmol) of pyridine were dissolved in 100 ml of THF, and then 13.0 g of 3-nitrobenzoyl chloride dissolved in 20 ml of THF was slowly charged dropwise thereto. After stirring at room temperature for 10 hours, ethyl acetate and water were added to the reaction solution. After carrying out a liquid separation operation, the organic layer was collected by separation and dried over anhydrous magnesium sulfate. This solution was filtered, the filtrate was evaporated under reduced pressure and the obtained residue was washed with a hexane-IPE mixed solvent to prepare 26.0 g (yield 85%) of a target compound.

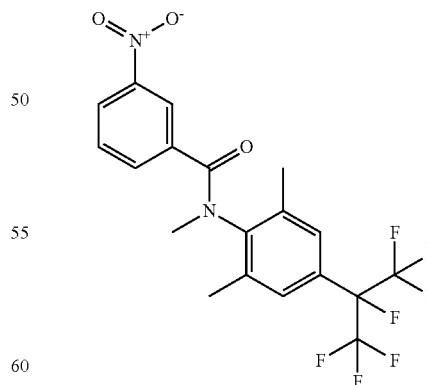
¹H-NMR (CDCl₃, ppm) δ 2.33 (6H, s), 7.37 (2H, s), 7.68 (1H, s), 7.72 (1H, t, J=8.1 Hz), 8.28 (1H, d, J=8.1 Hz), 8.44 (1H, dd, J=1.2 Hz, 8.1 Hz), 8.75 (1H, t, J=1.2 Hz)

40

5-2

Preparation of N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-N-methyl-3-nitrobenzamide

45



60

To a solution having 0.180 g of 60% sodium hydride suspended in 15 ml of THF was charged dropwise 2.00 g (4.56 mmol) of N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-3-nitrobenzamide dissolved in 5 ml of THF at room temperature. After stirring at room temperature for 30 minutes, 0.650

65

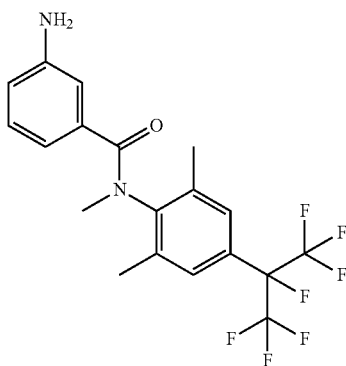
377

g of methyl iodide dissolved in 5 ml of THF was charged dropwise thereto. Then, the temperature was elevated to 50° C., followed by stirring for 4 hours, and then returning to room temperature, and ethyl acetate and water were added to the reaction solution. The organic layer was collected by separation, washed with water once, and then dried over anhydrous magnesium sulfate, and the solvent was evaporated under reduced pressure. The obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=6:1) to prepare 1.73 g (yield 84%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 2.31 (6H, s), 3.38 (3H, s), 7.27 (2H, s), 7.37 (1H, t, J=7.8 Hz), 7.62-7.65 (1H, m), 8.05 (1H, t, J=2.0 Hz), 8.11-8.14 (1H, m).

5-3

Preparation of 3-amino-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-N-methylbenzamide



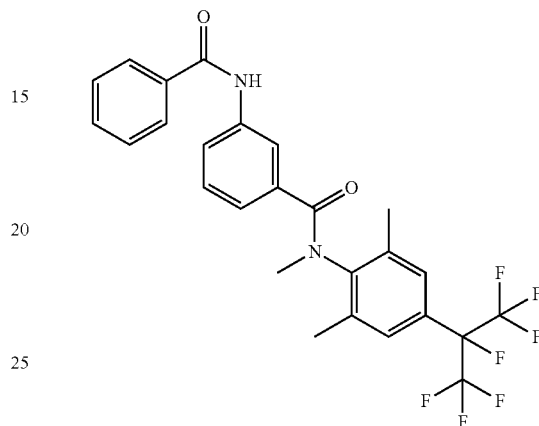
A solution obtained by adding 1.50 g (3.31 mmol) of N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-N-methyl-3-nitrobenzamide and 0.150 g of 10% palladium-carbon into 20 ml of methanol was stirred for 2 hours at a normal pressure under a hydrogen atmosphere. The catalyst was removed by filtration, and then the solvent was evaporated under reduced pressure. Then, the precipitated solid was washed with hexane to prepare 1.24 g (yield 88%) of a target compound.

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¹H-NMR (CDCl₃, ppm) δ 2.27 (6H, s), 3.31 (3H, s), 3.80 (2H, broad-s), 6.40-6.43 (1H, m), 6.54-6.58 (1H, m), 6.71 (1H, t, J=2.0 Hz), 6.76-6.86 (1H, m), 7.22 (2H, s).

5-4

Preparation of 3-benzamide-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-N-methylbenzamide

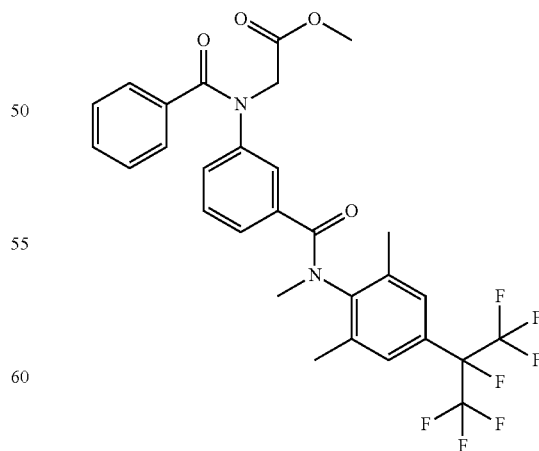


According to the method of 1-5 of Example 1, a target compound was prepared from 3-amino-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-N-methylbenzamide and benzoyl chloride.

¹H-NMR (DMSO-d₆, ppm) δ 2.29 (6H, s), 3.24 (3H, s), 6.84 (1H, d, J=7.8 Hz), 7.12 (1H, t, J=7.8 Hz), 7.33 (2H, s), 7.50-7.64 (4H, m), 7.85-7.88 (2H, m), 7.98-8.03 (1H, m), 10.22 (1H, s).

5-5

Preparation of methyl 2-(N-(3((2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)(methyl)carbamoyl)phenyl)benzamide)acetate (Compound No. 6-1)



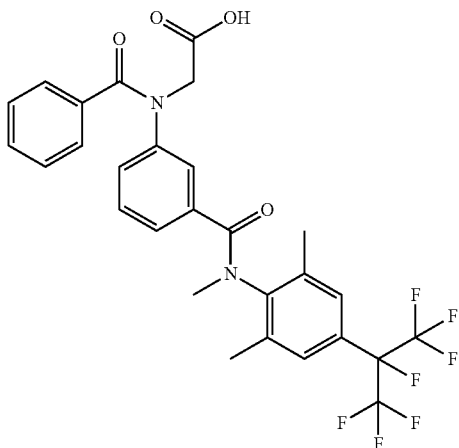
According to the method of 1-6 of Example 1, a target compound was prepared from 3-benzamide-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-N-methylbenzamide.

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¹H-NMR (CDCl₃, ppm) δ 2.18 (6H, s), 3.29 (3H, s), 3.79 (3H, s), 4.27 (2H, s), 6.92-6.94 (2H, m), 7.02-7.05 (1H, m), 7.10-7.14 (2H, m), 7.18-7.41 (6H, m).

Example 6

Preparation of 2-(N-(3-((2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)(methyl)carbamoyl)phenyl)benzamide)acetic acid (Compound No. 6-3)

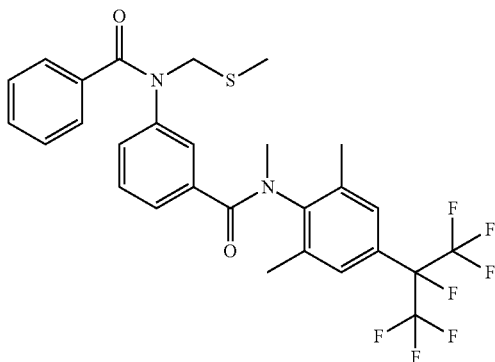


According to the method of Example 2, a target compound was prepared from methyl 2-(N-(3-((2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)(methyl)carbamoyl)phenyl)benzamide)acetate.

¹H-NMR (CDCl₃, ppm) δ 2.15 (6H, s), 3.29 (3H, s), 4.34 (2H, s), 4.70 (1H, broad-s), 6.92-6.94 (2H, m), 6.99-7.03 (1H, m), 7.10-7.28 (8H, m).

Example 7

Preparation of N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-N-methyl-3-(N-(methylthiomethyl)benzamide)benzamide (Compound No. 6-6)



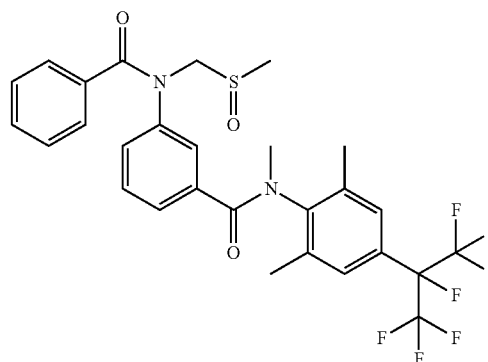
According to the method of 1-6 of Example 1, a target compound was prepared from 3-benzamide-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-N-methylbenzamide obtained in 5-4 of Example 5 and chloromethyl methyl sulfide.

380

¹H-NMR (CDCl₃, ppm) δ 2.12 (3H, s), 2.18 (6H, s), 3.29 (3H, s), 4.82 (2H, s), 6.93-6.97 (2H, m), 7.03-7.05 (1H, m), 7.10-7.15 (4H, m), 7.22-7.26 (4H, m).

Example 8

Preparation of N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-N-methyl-3-(N-(methylsulfinylmethyl)benzamide)benzamide (Compound No. 6-7)



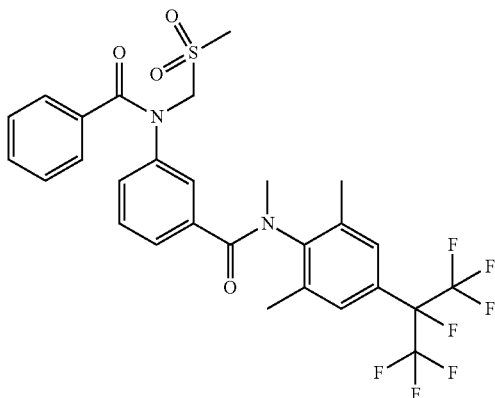
To a solution of 0.120 g (0.200 mmol) of N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-N-methyl-3-(N-(methylthiomethyl)benzamide)benzamide obtained in Example 7 in 10 ml of dichloromethane was added 0.0440 g (0.360 mmol) of 70% metachloroperbenzoic acid, followed by stirring at room temperature for 1 hour. The reaction liquid was washed with a saturated aqueous sodium hydrogen carbonate solution and saturated brine, and dried over anhydrous magnesium sulfate. The solvent was evaporated under reduced pressure and the obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=1:1→0:1→ethyl acetate:methanol=10:1) to prepare 0.930 g (yield 77%) of a target compound.

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¹H-NMR (CDCl₃, ppm) δ 2.18 (6H, s), 2.65 (3H, s), 3.26 (3H, s), 4.43 (1H, d, J=13.1 Hz), 5.09 (1H, d, J=13.1 Hz), 6.99-7.01 (2H, m), 7.16-7.32 (9H, m).

Example 9

Preparation of N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-N-methyl-3-(N-(methylsulfonylmethyl)benzamide)benzamide (Compound No. 6-8)

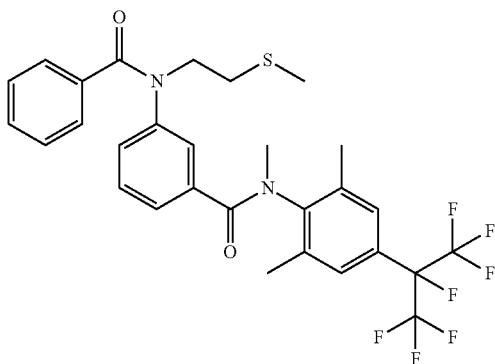


According to the method of Example 8, 70% metachlorop-
erbenzoic acid was used in a 3-fold molar amount with
respect to N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phe-
nyl)-N-methyl-3-(N-(methylthiomethyl)benzamide)benza-
mide of the raw material to prepare a target compound.

¹H-NMR (CDCl₃, ppm) δ 2.18 (6H, s), 3.05 (3H, s), 3.28 (3H, s), 4.92 (2H, s), 6.99-7.01 (1H, m), 7.08-7.11 (2H, m), 7.16-7.24 (3H, m), 7.29-7.41 (5H, m).

Example 10

Preparation of N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-N-methyl-3-(N-(2-(methylthio)ethyl)benzamide)benzamide (Compound No. 5-71)



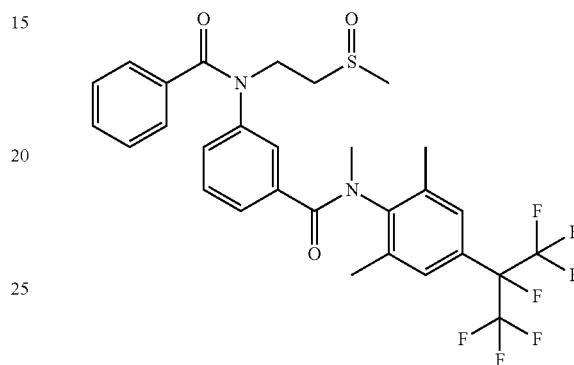
According to the method of 1-6 of Example 1, a target
compound was prepared from 3-benzamide-N-(2,6-dim-
ethyl-4-(perfluoropropan-2-yl)phenyl)-N-methylbenzamide
obtained in 5-4 of Example 5 and 2-chloroethyl methyl sul-
fide.

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¹H-NMR (CDCl₃, ppm) δ 2.13 (6H, s), 2.18 (3H, s), 2.66 (2H, t, J=7.3 Hz), 3.27 (3H, s), 3.92 (2H, t, J=7.3 Hz), 6.90-6.96 (3H, m), 7.11-7.16 (4H, m), 7.21-7.26 (3H, m), 7.33-7.34 (1H, m).

Example 11

Preparation of N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-N-methyl-3-(N-(2-(methylsulfinyl)ethyl)benzamide)benzamide (Compound No. 5-72)

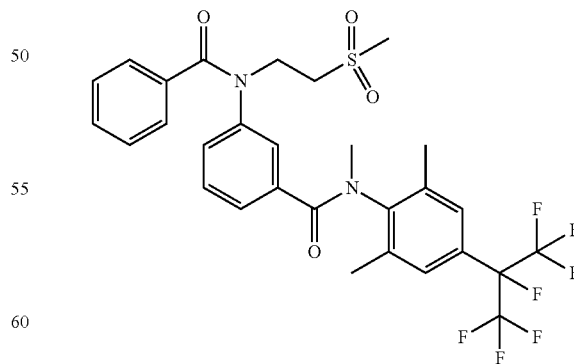


According to the method of Example 8, a target compound
was prepared from N-(2,6-dimethyl-4-(perfluoropropan-2-
yl)phenyl)-N-methyl-3-(N-(2-(methylthio)ethyl)benza-
mide)benzamide obtained in Example 10.

¹H-NMR (CDCl₃, ppm) δ 2.17 (6H, s), 2.66 (3H, s), 2.90-2.94 (1H, m), 3.17-3.19 (1H, m), 3.26 (3H, s), 4.00-4.02 (1H, m), 4.11-4.13 (1H, m), 6.85-6.87 m), 6.97 (1H, t, J=7.8 Hz), 7.08-7.29 (9H, m).

Example 12

Preparation of N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-N-methyl-3-(N-(2-(methylsulfonyl)ethyl)benzamide)benzamide (Compound No. 5-73)



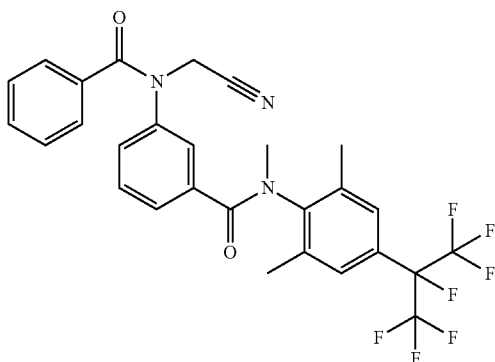
According to the method of Example 9, a target compound
was prepared from N-(2,6-dimethyl-4-(perfluoropropan-2-
yl)phenyl)-N-methyl-3-(N-(2-(methylthio)ethyl)benza-
mide)benzamide obtained in Example 10.

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¹H-NMR (CDCl₃, ppm) δ 2.09 (6H, s), 3.03 (3H, s), 3.26 (3H, s), 3.35 (2H, t, J=7.3 Hz), 4.19 (2H, t, J=7.3 Hz), 6.85-6.87 (1H, m), 6.96 (1H, t, J=7.8 Hz), 7.06-7.07 (1H, m), 7.14-7.29 (8H, m).

Example 13

Preparation of 3-(N-(cyanomethyl)benzamide)-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-N-methylbenzamide (Compound No. 6-18)

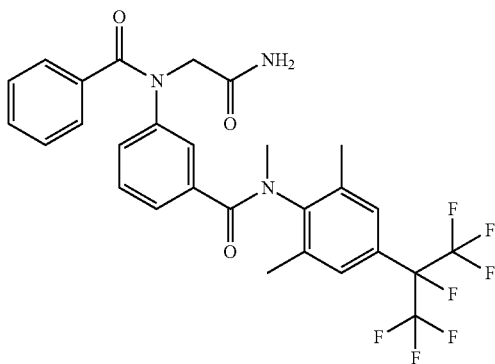


According to the method of 1-6 of Example 1, a target compound was prepared from 3-benzamide-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-N-methylbenzamide obtained in 5-4 of Example 5 and chloroacetonitrile.

¹H-NMR (CDCl₃, ppm) δ 2.20 (6H, s), 3.31 (3H, s), 4.45 (2H, s), 6.92-6.94 (1H, m), 7.04-7.05 (1H, m), 7.13-7.34 (9H, m).

Example 14

Preparation of 3-(N-(2-amino-2-oxoethyl)benzamide)-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-N-methylbenzamide (Compound No. 6-12)



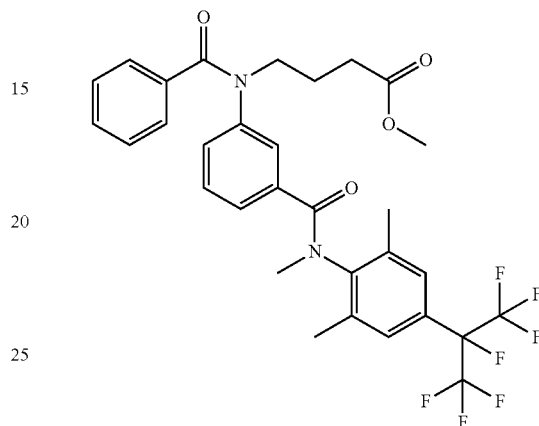
According to the method of 1-6 of Example 1, a target compound was prepared from 3-benzamide-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-N-methylbenzamide obtained in 5-4 of Example 5 and chloroacetic acid amide.

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¹H-NMR (CDCl₃, ppm) δ 2.16 (6H, s), 3.28 (3H, s), 4.20 (2H, s), 5.50 (1H, broad-s), 6.10 (1H, broad-s), 6.94-6.95 (2H, m), 7.04-7.06 (1H, m), 7.12-7.33 (8H, m).

Example 15

Preparation of methyl 4-(N-(3-((2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)(methyl)carbamoyl)phenyl)benzamide)butanoate (Compound No. 6-13)

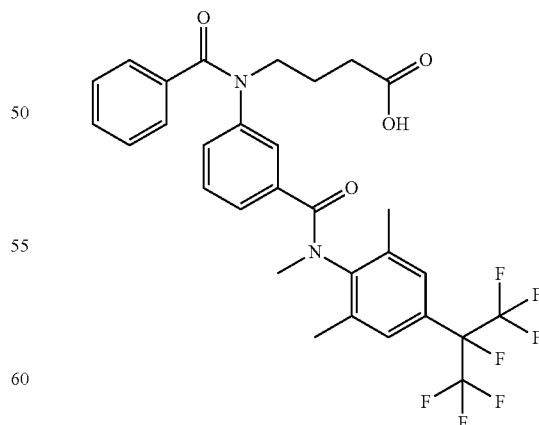


According to the method of 1-6 of Example 1, a target compound was prepared from 3-benzamide-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-N-methylbenzamide obtained in 5-4 of Example 5 and methyl 4-iodobutyrate ester.

¹H-NMR (CDCl₃, ppm) δ 1.86-1.89 (2H, m), 2.15 (6H, s), 2.35 (2H, t, J=7.3 Hz), 3.28 (3H, s), 3.66 (3H, s), 3.78 (2H, t, J=7.3 Hz), 6.89-6.94 (3H, m), 7.11-7.12 (4H, m), 7.21-7.25 (3H, m), 7.34 (1H, broad-s).

Example 16

Preparation of 4-(N-(3-((2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)(methyl)carbamoyl)phenyl)benzamide)butanoic acid (Compound No. 6-14)



According to the method of Example 2, a target compound was prepared from methyl 4-(N-(3-((2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)(methyl)carbamoyl)phenyl)benzamide)butanoate obtained in Example 15.

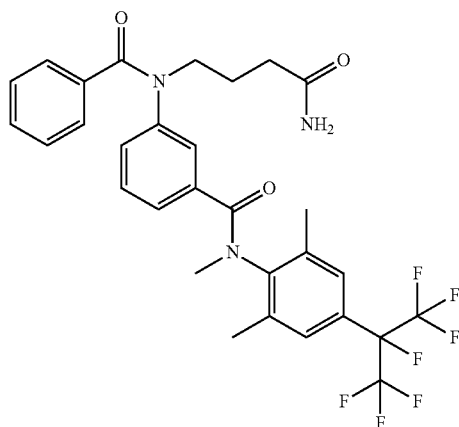
385

¹H-NMR (CDCl₃, ppm) δ 1.85-1.87 (2H, m), 2.26 (6H, s), 2.42-2.43 (2H, m), 3.28 (3H, s), 3.83 (2H, t, J=7.3 Hz), 6.88-6.94 (3H, m), 7.09-7.14 (4H, m), 7.19-7.26 (3H, m), 7.35 (1H, broad-s).

The proton presumed to be indicative of the carboxylic acid was not detected.

Example 17

Preparation of 3-(N-(4-amino-4-oxobutyl)benzamide)-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-N-methylbenzamide (Compound No. 6-15)



0.100 g (0.163 mmol) of 4-(N-(3-((2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)(methyl)carbamoyl)phenyl)benzamide)butanoic acid obtained in Example 16 and 1 droplet of DMF were charged to 5 ml of benzene, and 0.0500 g of oxalyl chloride was added thereto, followed by stirring at 60° C. for 2 hours. After cooling to room temperature, the solvent was evaporated under reduced pressure to obtain a crude acid chloride.

To 5 ml of THF was charged 2 ml of 28% aqueous ammonia, and the acid chloride obtained above was added thereto at room temperature. After stirring at room temperature for 1 hour, ethyl acetate was charged thereto, followed by washing with a 5% aqueous hydrochloric acid solution and a saturated aqueous sodium hydrogen carbonate solution in this order. After drying over anhydrous magnesium sulfate, the solvent was evaporated under reduced pressure and the obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=1:1→30:1→ethyl acetate:methanol=10:1) to prepare 0.0660 g (yield: 66%) of a target compound.

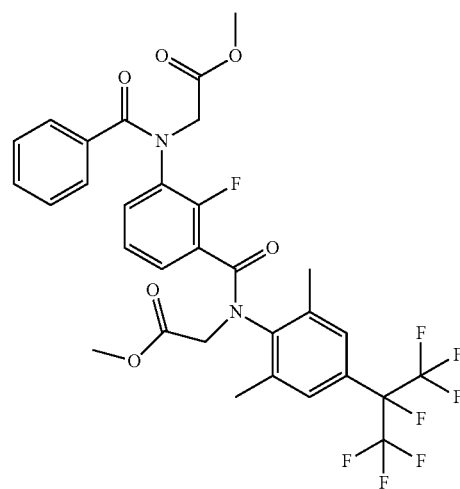
¹H-NMR (CDCl₃, ppm) δ 1.86 (2H, t, J=6.8 Hz), 2.13 (6H, s), 2.25-2.30 (2H, m), 3.27 (3H, s), 3.84 (2H, t, J=6.8 Hz),

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5.35 (1H, broad-s), 6.50 (1H, broad-s), 6.90-6.95 (3H, m), 7.11-7.13 (4H, m), 7.25-7.30 (3H, m), 7.34 (1H, broad-s).

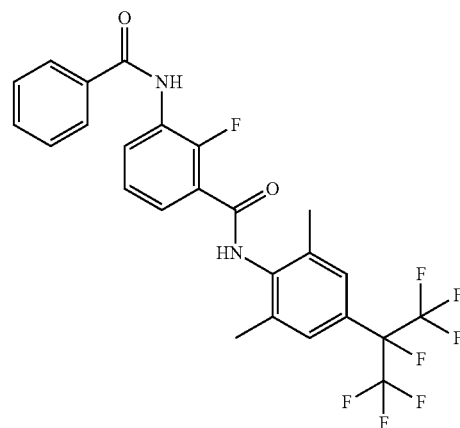
Example 18

Preparation of methyl 2-(N-(3-((2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)(2-methoxy-2-oxoethyl)carbamoyl)-2-fluorophenyl)benzamide)acetate (Compound No. 8-12)



18-1

Preparation of 3-benzamide-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide



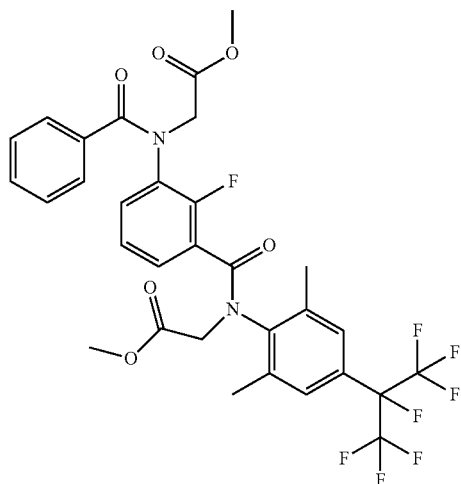
According to the method of 1-5 of Example 1, a target compound was prepared from 3-amino-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide obtained in 1-3 of Example 1.

387

¹H-NMR (DMSO-d₆, ppm) δ 2.34 (6H, s), 7.37 (1H, t, J=7.8 Hz), 7.45 (2H, s), 7.53-7.65 (4H, m), 7.77-7.82 (1H, m), 8.00-8.02 (2H, m), 10.10 (1H, s), 10.29 (1H, s).

18-2

Preparation of methyl 2-(N-3((2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)(2-methoxy-2-oxoethyl)carbamoyl)-2-fluorophenyl)benzamide)acetate (Compound No. 8-12)

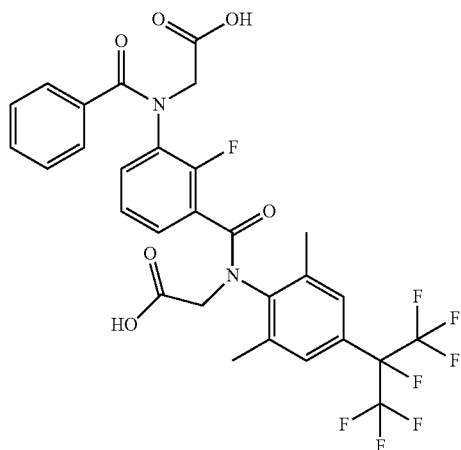


According to the method of 1-6 of Example 1, 2.2-fold molar amounts of 60% sodium hydride and 4.4-fold molar amounts of ethyl bromoacetate were used with respect to 3-benzamide-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide to prepare a target compound.

¹H-NMR (CDCl₃, ppm) δ 2.50 (6H, broad-s), 3.51 (1H, s), 3.73 (3H, s), 3.81 (3H, s), 4.30 (1H, broad-s), 4.35 (1H, broad-s), 4.75 (1H, broad-s), 6.79 (1H, t, J=7.8 Hz), 7.08-7.24 (6H, m), 7.28-7.34 (3H, m).

Example 19

Preparation of 2-(N-3((carboxymethyl)(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)carbamoyl)-2-fluorophenyl)benzamide)acetic acid (Compound No. 8-13)

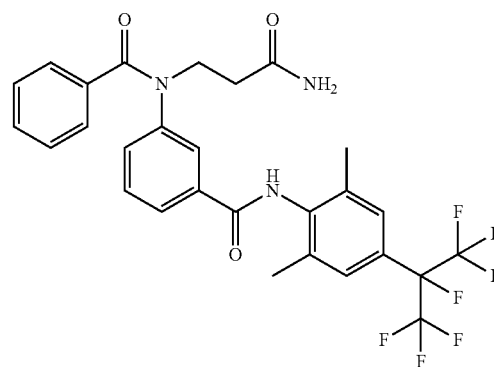
**388**

According to the method of Example 2, a target compound was prepared from methyl 2-(N-3((2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)(2-methoxy-2-oxoethyl)carbamoyl)-2-fluorophenyl)benzamide)acetate obtained in Example 18.

¹H-NMR (CDCl₃, ppm) δ 2.18-2.38 (6H, broad-s), 4.10 (1H, broad-s), 4.32 (2H, s), 4.52 (1H, broad-s), 6.02 (2H, broad-s), 6.77 (1H, t, J=7.8 Hz), 7.03-7.41 (9H, m).

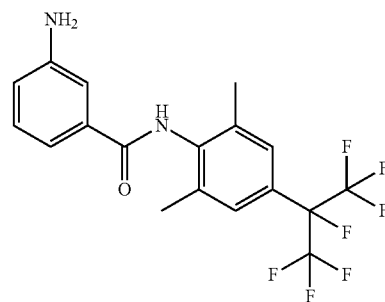
Example 20

Preparation of N-(3-amino-3-oxopropyl)-N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)carbamoyl)phenyl)benzamide (Compound No. 1-1)



20-1

Preparation of 3-amino-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)benzamide



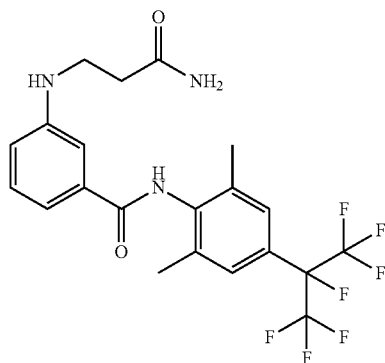
According to the method of 1-3 of Example 1, a target compound was prepared from N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-3-nitrobenzamide obtained in 5-1 of Example 5.

¹H-NMR (CDCl₃, ppm) δ 2.34 (6H, s), 3.87 (2H, broad-s), 6.86-6.89 (1H, m), 7.20-7.35 (6H, m)

389

20-2

Preparation of 3-(3-amino-3-oxopropylamino)-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)benzamide (Compound No. 18-1)

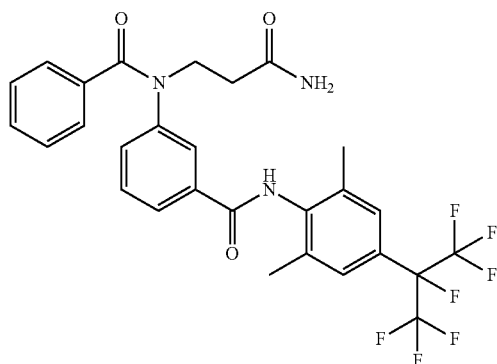


1.00 g (2.28 mmol) of 3-amino-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)benzamide was charged to 3 ml of acetic acid, and 2.51 g (2.51 mmol) of acrylamide was added thereto, followed by stirring at 70° C. for 5 hours. After cooling to room temperature, the mixture was discharged to water, followed by neutralization with potassium carbonate. After extraction with ethyl acetate, the residue was dried over anhydrous magnesium sulfate, and the solvent was evaporated under reduced pressure. The obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=3:1→1:3→0:1) to prepare 0.650 g (yield 56%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 2.33 (6H, s), 2.52 (2H, t, J=5.8 Hz), 3.51 (2H, t, J=5.8 Hz), 4.45 (1H, broad-s), 5.54 (1H, broad-s), 5.73 (1H, broad-s), 6.81 (1H, d, J=8.3 Hz), 7.17-7.21 (2H, m), 7.28-7.30 (1H, m), 7.34 (2H, s), 7.54-7.59 (1H, m).

20-3

Preparation of N-(3-amino-3-oxopropyl)-N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)carbamoyl)phenylbenzamide (Compound No. 1-1)



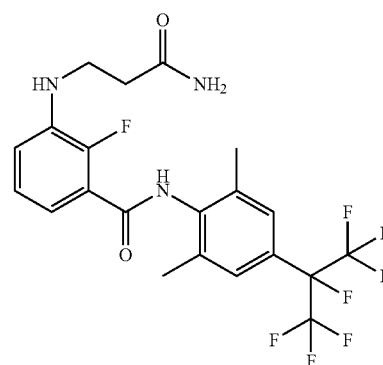
According to the method of 1-5 of Example 1, a target compound was prepared from 3-(3-amino-3-oxopropylamino)-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)benzamide.

390

¹H-NMR (CDCl₃, ppm) δ 2.28 (6H, s), 2.71 (2H, t, J=6.8 Hz), 4.30 (2H, t, J=6.8 Hz), 5.43 (1H, broad-s), 6.17 (1H, broad-s), 7.17-7.37 (9H, m), 7.66 (1H, broad-s), 7.70-7.73 (2H, m).

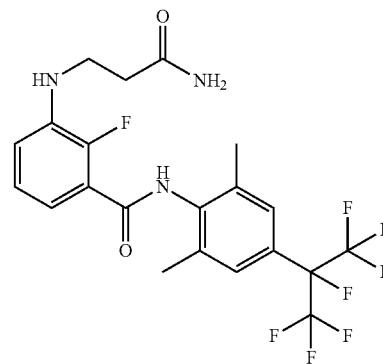
Example 21

Preparation of 3-(N-(3-amino-3-oxopropyl)benzamide)-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide (Compound No. 1-21)



21-1

Preparation of 3-(3-amino-3-oxopropylamino)-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide (Compound No. 18-42)



According to the method of 20-3 of Example 20, a target compound was prepared from 3-amino-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide obtained in 1-3 of Example 1.

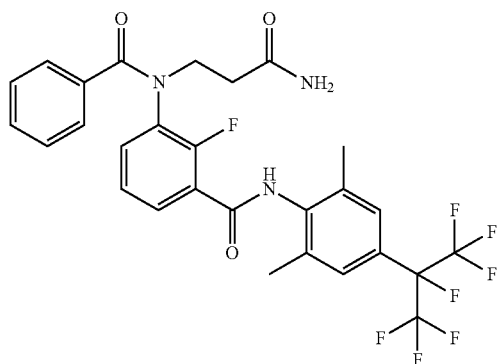
¹H-NMR (CDCl₃, ppm) δ 2.36 (6H, s), 2.57-2.60 (2H, m), 3.54-3.57 (2H, m), 4.64 (1H, broad-s), 5.48 (1H, broad-s),

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5.61 (1H, broad-s), 6.89-6.94 (1H, m), 7.15 (1H, t, J=7.8 Hz),
7.35-7.39 (3H, m), 7.84 (1H, broad-d, J=12.7 Hz).

21-2

Preparation of 3-(N-(3-amino-3-oxopropyl)benzamide)-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide (Compound No. 1-21)

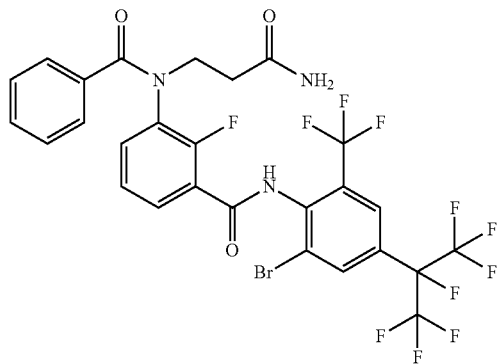


According to the method of 1-5 of Example 1, a target compound was prepared from 3-(3-amino-3-oxopropylamino)-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide.

¹H-NMR (CDCl₃, ppm) δ 2.26 (6H, s), 2.60 (1H, broad-s), 2.75 (1H, broad-s), 4.22-4.23 (2H, m), 5.45 (1H, broad-s), 6.03 (1H, broad-s), 7.19-7.34 (8H, m), 7.49-7.52 (2H, m), 7.90-7.96 (1H, m).

Example 22

Preparation of 3-(N-(3-amino-3-oxopropyl)benzamide)-N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-2-fluorobenzamide (Compound No. 1-171)

**392**

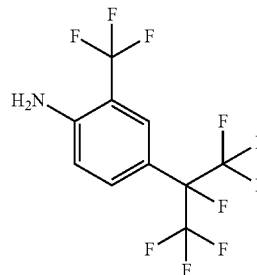
22-1

Preparation of 4-(perfluoropropan-2-yl)-2-(trifluoromethyl)aniline (Compound No. 21-2)

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100 g (0.608 mol) of 2-(trifluoromethyl)aniline, 131 g (0.639 mol) of 85% sodium hydrosulfite, and 20.9 g (0.0608 mol) of tetrabutylammonium hydrogen sulfate were charged into a mixed solution of 1500 ml of ethyl acetate and 1500 ml of water, and 53.9 g (0.639 mol) of sodium hydrogen carbonate was added thereto. 198 g (0.669 mol) of heptafluoroisopropyl iodide was added dropwise thereto at room temperature, followed by stirring at room temperature for 6 hours. After the liquid separation, the solvent of the organic layer was evaporated under reduced pressure, and 500 ml of ethyl acetate was charged thereto. 160 g (0.608 mol) of a 4 N hydrogen chloride/ethyl acetate solution was added dropwise thereto, followed by stirring at room temperature for 30 minutes, followed by stirring at 5° C. for 1 hour. The precipitated solid was removed by filtration, then the filtrate was washed with water and a saturated aqueous sodium hydrogen carbonate solution in this order, and then dried over anhydrous magnesium sulfate, and the solvent was evaporated under reduced pressure. The obtained residue was purified by silica gel column chromatography (developing solvent; hexane: ethyl acetate=10:1) to prepare 60.0 g (yield 30%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 4.49 (2H, broad-s), 6.81 (1H, d, J=8.3 Hz), 7.48 (1H, d, J=8.3 Hz), 7.64 (1H, s).

45

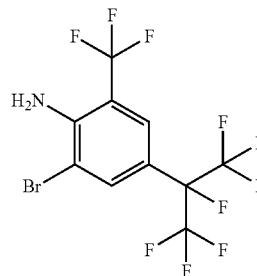
22-2

Preparation of 2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)aniline (Compound No. 21-9)

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100 g (0.273 mol) of 4-(perfluoropropan-2-yl)-2-(trifluoromethyl)aniline was charged to 500 ml of DMF, and 52.1 g (0.287 mol) of N-bromosuccinimide was charged in separate portions thereto over 30 minutes. After stirring 60° C. for 2

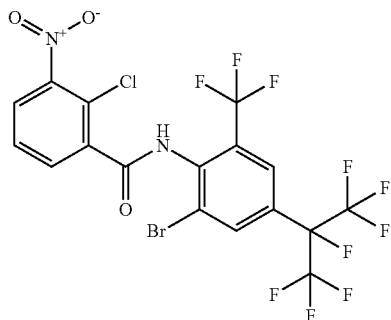
393

hours, the mixture was cooled to room temperature, and the mixture was discharged to 2000 ml of water. The mixture was extracted with ethyl acetate, washed with saturated brine, and dried over anhydrous magnesium sulfate. The solvent was evaporated under reduced pressure and the obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=20:1) to prepare 89.0 g (yield 80%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 5.03 (2H, broad-s), 7.61 (1H, s), 7.79 (1H, s).

22-3

Preparation of N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-2-chloro-3-nitrobenzamide (Compound No. 11-38)



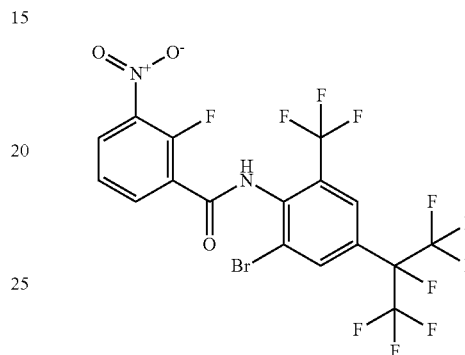
3.60 g (8.82 mmol) of 2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)aniline was charged to 20 ml of anhydrous THF, followed by cooling to -70° C. under a nitrogen atmosphere. 4.85 ml (9.70 mmol) of a 2.0 M lithium diisopropyl amide hexane solution was added dropwise thereto, and then dissolved in 5 ml of anhydrous THF, and 2.34 g (10.7 mmol) of an acid chloride prepared from 2-chloro-3-nitrobenzoic acid and thionyl chloride was added dropwise thereto, followed by stirring at -70° C. for 30 minutes and then stirring at room temperature for 30 minutes. The mixture was discharged to an aqueous ammonium chloride solution, then extracted with ethyl acetate, and dried over anhydrous magnesium sulfate. The solvent was evaporated under reduced pressure and the obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=10:1→8:2→3:1) to prepare 1.76 g (yield: 34%) of a target compound.

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¹H-NMR (CDCl₃, ppm) δ 7.61 (1H, t, J=7.8 Hz), 7.67 (1H, broad-s), 7.93-7.97 (3H, m), 8.18 (1H, broad-s).

22-4

Preparation of N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-2-fluoro-3-nitrobenzamide (Compound No. 11-65)

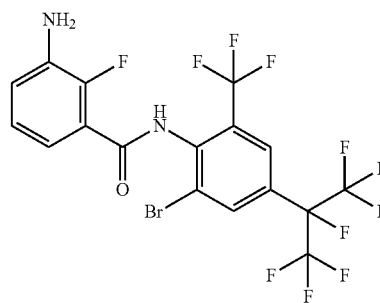


According to the method of 1-2 of Example 1, a target compound was prepared from N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-2-chloro-3-nitrobenzamide.

¹H-NMR (CDCl₃, ppm) δ 7.53 (1H, t, J=7.3 Hz), 7.93 (1H, broad-s), 8.17-8.18 (2H, m), 8.28-8.32 (1H, m), 8.44-8.48 (1H, m).

22-5

Preparation of 3-amino-N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-2-fluorobenamide (Compound No. 12-37)



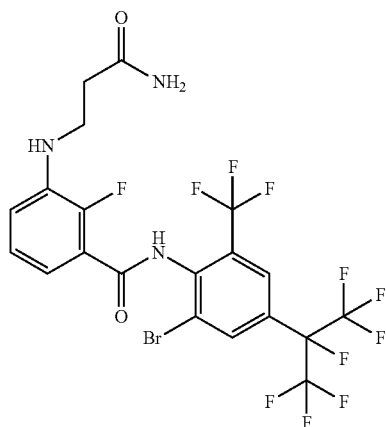
According to the method of 1-3 of Example 1, a target compound was prepared from N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-2-fluoro-3-nitrobenzamide.

395

¹H-NMR (CDCl₃, ppm) δ 3.93 (2H, broad-s), 6.99-7.04 (1H, m), 7.11 (1H, t, J=7.8 Hz), 7.47-7.49 (1H, m), 7.91 (1H, s), 8.14 (1H, s), 8.28 (1H, d, J=14.6 Hz).

22-6

Preparation of 3-(3-amino-3-oxopropylamino)-N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-2-fluorobenzamide (Compound No. 18-48)

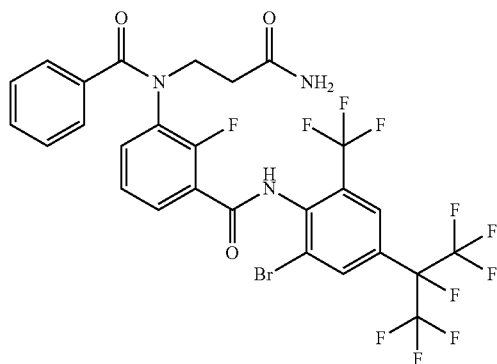


According to the method of 20-3 of Example 20, a target compound was prepared from 3-amino-N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-2-fluorobenzamide.

¹H-NMR (CDCl₃, ppm) δ 2.58-2.61 (2H, m), 3.55-3.59 (2H, m), 4.60 (1H, broad-s), 5.40 (1H, broad-s), 5.60 (1H, broad-s), 6.96-6.98 (1H, m), 7.15-7.19 (1H, m), 7.39-7.43 (1H, m), 7.91 (1H, s), 8.13 (1H, s), 8.26 (1H, d, J=14.6 Hz).

22-7

Preparation of 3-(N-(3-amino-3-oxopropyl)benzamide)-N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-2-fluorobenzamide (Compound No. 1-171)



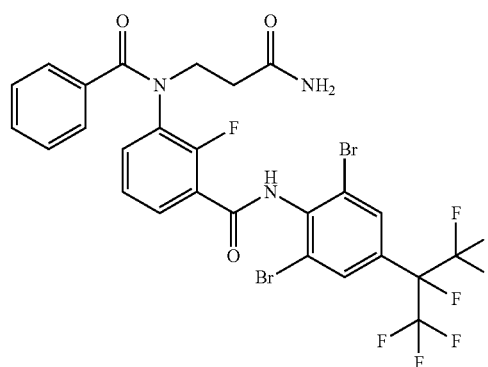
According to the method of 1-5 of Example 1, a target compound was prepared from 3-(3-amino-3-oxopropylamino)-N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-2-fluorobenzamide.

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¹H-NMR (CDCl₃, ppm) δ 2.55-2.80 (2H, m), 4.22-4.26 (2H, m), 5.45 (1H, broad-s), 6.00 (1H, broad-s), 7.21-7.30 (6H, m), 7.52-7.57 (1H, m), 7.89-8.12 (4H, m),

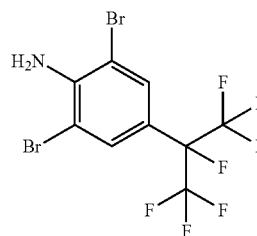
Example 23

Preparation of 3-(N-(3-amino-3-oxopropyl)benzamide)-N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide (Compound No. 1-163)



23-1

Preparation of 2,6-dibromo-4-(perfluoropropan-2-yl)aniline



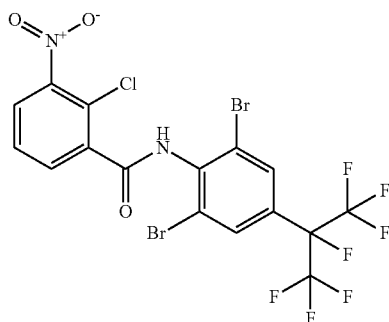
216 g (0.802 mol) of 4-(perfluoropropan-2-yl)aniline was charged to 863 ml of DMF, followed by cooling to 5° C. 285 g (1.60 mol) of N-bromosuccinimide was charged in separate portions thereto over 1 hour. The mixture was stirred at room temperature for 1 hour and stirred at 37° C. for 2 hours. The mixture was discharged to 2000 ml of water, extracted with 2000 ml of ethyl acetate, and washed with 1000 ml of saturated brine. After drying over anhydrous magnesium sulfate, the solvent was evaporated under reduced pressure. The obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=20:1) to prepare 304 g (yield 90%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 4.88 (2H, broad-s), 7.59 (2H, s).

397

23-2

Preparation of 2-chloro-N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-3-nitrobenzamide (Compound No. 11-24)

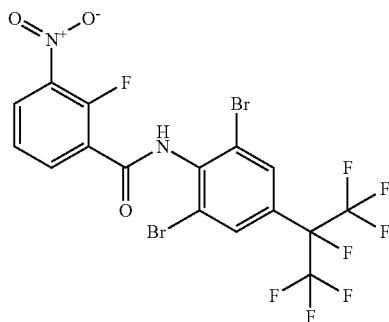


According to the method of 22-3 of Example 22, a target compound was prepared from 2,6-dibromo-4-(perfluoropropan-2-yl)aniline.

¹H-NMR (CDCl₃, ppm) δ 7.58 (1H, t, J=7.8 Hz), 7.66 (1H, broad-s), 7.90 (2H, s), 7.93 (1H, dd, J=1.5, 7.8 Hz), 7.98 (1H, d, J=7.8 Hz).

23-3

Preparation of N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-2-fluoro-3-nitrobenzamide (Compound No. 11-51)



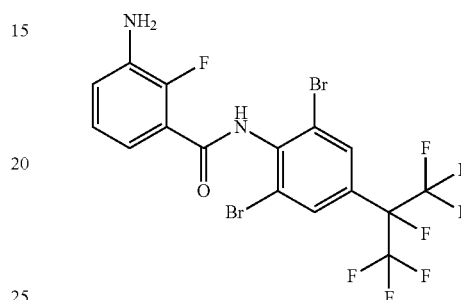
According to the method of 1-2 of Example 1, a target compound was prepared from 2-chloro-N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-3-nitrobenzamide.

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¹H-NMR (CDCl₃, ppm) δ 7.51-7.55 (1H, m), 7.90 (2H, s), 8.16 (1H, d, J=11.7 Hz), 8.27-8.31 (1H, m), 8.48 (1H, t, J=6.3 Hz).

23-4

Preparation of 3-amino-N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide (Compound No. 12-26)

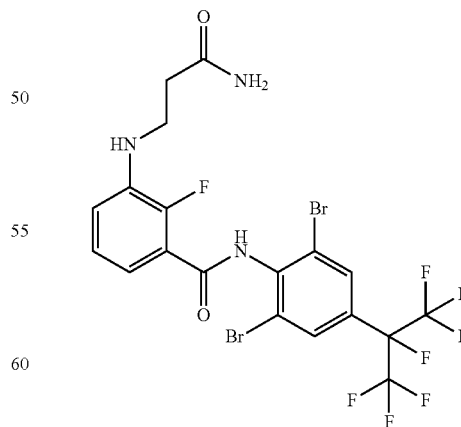


According to the method of 1-3 of Example 1, a target compound was prepared from N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-2-fluoro-3-nitrobenzamide.

¹H-NMR (CDCl₃, ppm) δ 3.93 (2H, broad-s), 6.99-7.04 (1H, m), 7.11 (1H, t, J=7.8 Hz), 7.47-7.49 (1H, m), 7.91 (1H, s), 8.14 (1H, s), 8.28 (1H, d, J=14.6 Hz).

23-5

Preparation of 3-(3-amino-3-oxopropylamino)-N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide (Compound No. 18-44)



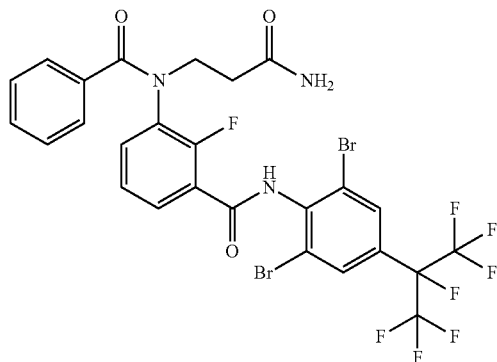
According to the method of 20-3 of Example 20, a target compound was prepared from 3-amino-N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide.

399

¹H-NMR (CDCl₃, ppm) δ 2.55-2.61 (2H, m), 3.54-3.57 (2H, m), 4.60 (1H, broad-s), 5.69-5.74 (2H, m), 6.90-6.98 (1H, m), 7.16 (1H, t, J=7.8 Hz), 7.35-7.45 (1H, m), 7.87 (2H, s), 8.24 (1H, d, J=14.1 Hz).

23-6

Preparation of 3-(N-(3-amino-3-oxopropyl)benzamide)-N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide (Compound No. 1-163)

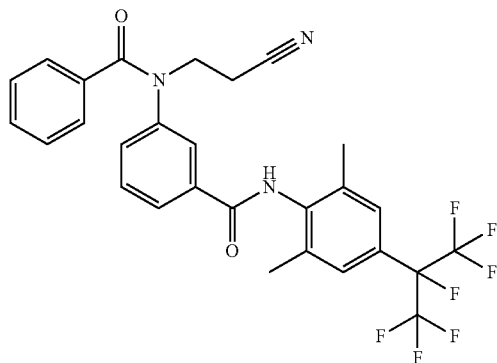


According to the method of 1-5 of Example 1, a target compound was prepared from 3-(3-amino-3-oxopropyl)-N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide

¹H-NMR (CDCl₃, ppm) δ 2.68 (1H, broad-s), 2.83 (1H, broad-s), 4.24 (2H, t, J=6.8 Hz), 5.42 (1H, broad-s), 6.02 (1H, broad-s), 7.18-7.22 (2H, m), 7.26-7.34 (4H, m), 7.55-7.56 (1H, m), 7.85 (2H, s), 7.94-8.00 (2H, m).

Example 24

Preparation of N-(2-cyanoethyl)-N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)phenyl)benzamide (Compound No. 5-8)



To 5 ml of DMF was added 0.300 g (2.36 mmol) of N-(3-amino-3-oxopropyl)-N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)phenyl)benzamide obtained in 20-3 of Example 20, and 1.01 g (1.73 mmol) of oxalyl chloride was added thereto under stirring, followed by stirring at room temperature for 1 hour. The reaction solution was poured into cold water for quenching, followed by extraction

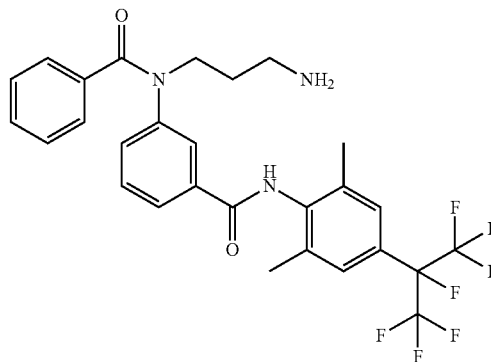
400

with ethyl acetate, then washed with a saturated aqueous sodium hydrogen carbonate solution saturated brine, and dried over anhydrous magnesium sulfate, and then the solvent was evaporated under reduced pressure. The obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=2:1→1:1) to prepare 0.950 g (yield 97%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 2.26 (6H, s), 2.93 (2H, t, J=6.3 Hz), 4.23 (2H, t, J=6.3 Hz), 7.20-7.37 (9H, m), 7.44-7.45 (1H, m), 7.68 (1H, s), 7.42 (1H, d, J=7.8 Hz).

Example 25

Preparation of N-(3-aminopropyl)-N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)phenyl)benzamide (Compound No. 6-20)



To 20 ml of isopropanol were added 0.750 g (1.33 mmol) of N-(2-cyanoethyl)-N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)phenyl)benzamide obtained in Example 24, 0.500 g (7.93 mmol) of ammonium formate, 1.60 g (26.6 mmol) of acetic acid, and 0.200 g of 10% Pd/C, followed by stirring at room temperature for 10 hours. The catalyst was filtered, and the solution was neutralized by the addition of an aqueous sodium hydrogen carbonate solution. The solution was extracted with ethyl acetate, then washed with saturated brine, and dried over anhydrous magnesium sulfate, and then the solvent was evaporated under reduced pressure. The obtained residue was purified by silica gel column chromatography (developing solvent; ethyl acetate) to prepare 0.520 g (yield 69%) of a target compound.

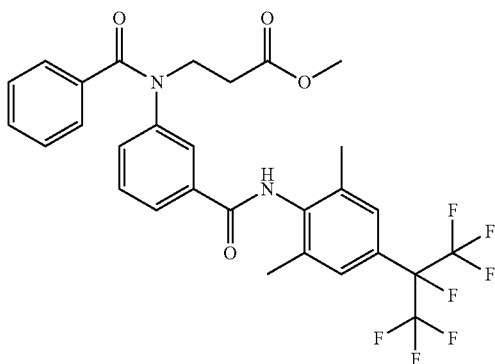
¹H-NMR (CDCl₃, ppm) δ 1.83 (6H, s), 1.89 (2H, broad-s), 3.31 (2H, t, J=7.3 Hz), 4.09 (2H, t, J=7.3 Hz), 7.18-7.36 (9H, m).

401

m), 7.69-7.71 (2H, m), 7.89 (1H, s). The proton presumed to be indicative of NH_2 was not detected.

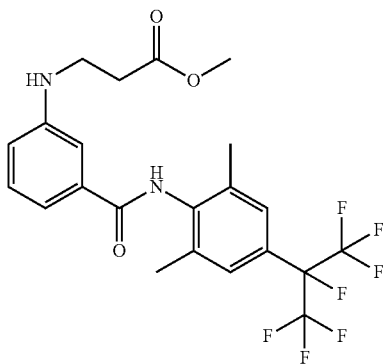
Example 26

Preparation of methyl 3-(N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)carbamoyl)phenyl)benzamide (Compound No. 5-1)



26-1

Preparation of methyl 3-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)carbamoyl)phenylamino)propanoate



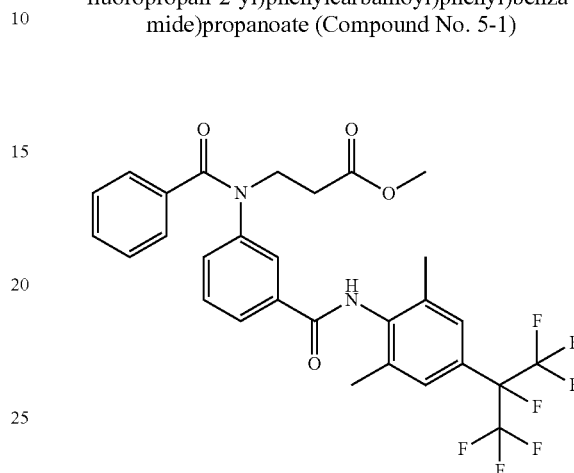
To 30 ml of an anhydrous THF solution of 3.00 g (7.35 mmol) of 3-amino-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)benzamide obtained in 20-1 of Example 20 were added 0.760 g (8.82 mmol) of methyl acrylate and 3.69 ml (29.4 mmol) of a borane trifluoride diethyl ether complex, followed by stirring at 60° C. for 8 hours, while 0.700 g (8.13 mmol) of methyl acrylate was added thereto three times. Water was added to the reaction liquid, and the solvent was evaporated under reduced pressure. Then, the residue was dissolved in ethyl acetate. The organic layer was washed with a saturated aqueous sodium hydrogen carbonate solution and saturated brine, and then dried over anhydrous magnesium sulfate. The solvent was evaporated under reduced pressure and the obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=8:1) to prepare 0.100 g (yield 3%) of a target compound.

402

$^1\text{H-NMR}$ (CDCl_3 , ppm) δ 2.34 (6H, s), 2.63-2.67 (2H, m), 3.52 (2H, t, $J=6.3$ Hz), 3.71 (3H, s), 4.30 (1H, broad-s), 6.80-6.82 (1H, m), 7.15-7.19 (2H, m), 7.27-7.31 (1H, m), 7.34 (2H, s), 7.38 (1H, s).

26-2

Preparation of methyl 3-(N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)carbamoyl)phenyl)benzamide (Compound No. 5-1)

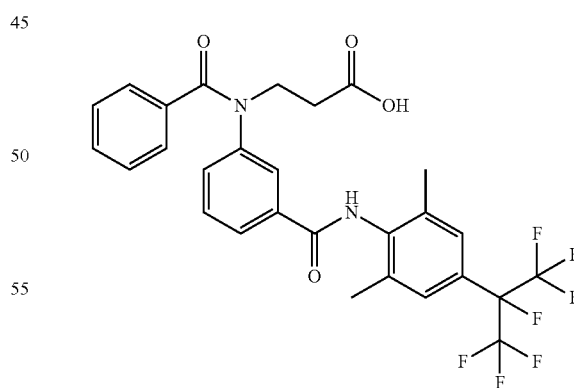


According to the method of 1-5 of Example 1, a target compound was prepared from methyl 3-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)carbamoyl)phenylamino)propanoate.

$^1\text{H-NMR}$ (CDCl_3 , ppm) δ 2.27 (6H, s), 2.77 (2H, t, $J=6.8$ Hz), 3.61 (3H, s), 4.30 (2H, t, $J=6.8$ Hz), 7.18-7.34 (9H, m), 7.39-7.40 (1H, m), 7.58 (1H, s), 7.70 (1H, d, $J=7.3$ Hz).

Example 27

Preparation of 3-(N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)carbamoyl)phenyl)benzamide propanoic acid (Compound No. 5-4)



According to the method of Example 2, a target compound was prepared from methyl 3-(N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)carbamoyl)phenyl)benzamide)propanoate obtained in 26-2 of Example 26.

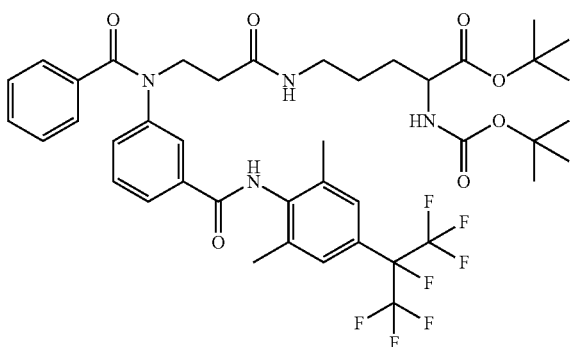
$^1\text{H-NMR}$ (DMSO-d_6 , ppm) δ 2.19 (6H, s), 2.57 (2H, t, $J=7.3$ Hz), 4.08 (2H, t, $J=7.3$ Hz), 7.21-7.26 (5H, m), 7.41-7.42 (4H, m), 7.73 (2H, s), 9.89 (1H, s).

403

The proton presumed to be indicative of the carboxylic acid was not detected.

Example 28

Preparation of tert-butyl 2-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)phenyl)-14,14-dimethyl-1,5,12-trioxo-1-phenyl-13-oxa-2,6,11-triazapentadecane-10-carboxylate (Compound No. 5-15)



0.300 g (0.510 mmol) of 3-(N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)phenyl)benzamide) propanoic acid obtained in Example 27 and 0.1 ml of DMF were added to 10 ml of dichloromethane, and 0.0500 ml (0.620 mmol) of oxalyl chloride was added thereto, followed by stirring at 40° C. for 2 hours. The solvent was evaporated under reduced pressure and the obtained residue was added to 0.170 g (0.510 mmol) of a tert-butyl 5-amino-2-(tert-butoxycarbonylamino)pentanoate hydrochloric acid salt, and a solution of 0.150 g (1.53 mmol) of triethylamine in 10 ml of THF, followed by stirring at room temperature for 2 hours. To the reaction liquid was added ethyl acetate, and the organic layer was washed with a saturated aqueous sodium hydrogen carbonate solution and saturated brine, and then dried over anhydrous magnesium sulfate. The solvent was evaporated under reduced pressure and the obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=1:2) to prepare 0.450 g (yield: quantitative) of a target compound.

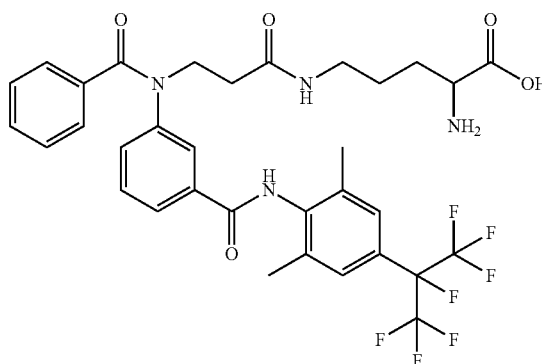
¹H-NMR (CDCl₃, ppm) δ 1.41-1.45 (18H, m), 1.56-1.59 (2H, m), 1.68-1.69 (1H, m), 2.04 (6H, s), 2.66-2.69 (2H, m), 3.35-3.36 (2H, m), 4.20-4.24 (1H, m), 4.25-4.29 (2H, m), 5.10-5.11 (1H, m), 6.40-6.41 (1H, m), 7.19-7.21 (3H, m), 7.24-7.29 (5H, m), 7.38-7.39 (2H, m), 7.77 (1H, s), 7.94-7.95 (1H, m).

404

One proton presumed to be indicative of NH was not detected.

Example 29

Preparation of a 2-amino-5-(3-(N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)phenyl)benzamide)propane amide)pentanoic acid hydrochloric acid salt (Compound No. 5-24)



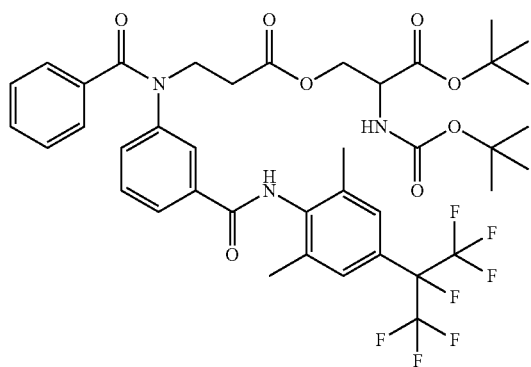
To 0.350 g (0.410 mmol) of tert-butyl 2-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)phenyl)-14,14-dimethyl-1,5,12-trioxo-1-phenyl-13-oxa-2,6,11-triazapentadecane 10-carboxylate prepared in Example 28 was added 2.00 ml (8.20 mmol) of a 4 N hydrogen chloride/ethyl acetate solution, followed by stirring at room temperature for 4 hours and leaving to stand overnight. The solvent was evaporated under reduced pressure and the obtained residue was washed with IPE to prepare 0.240 g (yield 80%) of a target compound.

¹H-NMR (DMSO-d₆, ppm) δ 1.45-1.50 (2H, m), 1.50-1.52 (2H, m), 2.20 (6H, s), 2.46-2.47 (2H, m), 2.99 (2H, t, J=6.3 Hz), 4.10 (2H, t, J=7.3 Hz), 7.23-7.28 (5H, m), 7.41-7.42 (4H, m), 7.78 (2H, s), 8.15-8.16 (1H, m), 8.33-8.34 (3H, m), 10.05 (1H, s). The proton presumed to be indicative of the carboxylic acid was not detected.

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Example 30

Preparation of tert-butyl 2-(tert-butoxycarbonylamino)-3-(3-(N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)phenyl)benzamide)propanoyloxy)propanoate (Compound No. 5-22)

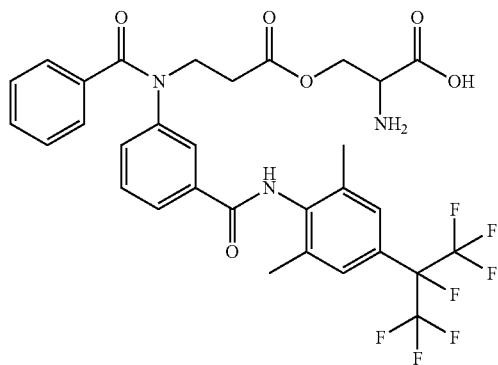


According to the method of Example 28, a target compound was prepared from 3-(N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)phenyl)benzamide)propanoic acid obtained in Example 27 and tert-butyl 2-(tert-butoxycarbonylamino)-3-hydroxypropanoate.

¹H-NMR (CDCl₃, ppm) δ 1.38 (9H, s), 1.42 (9H, s), 2.26 (6H, s), 2.77-2.78 (2H, m), 4.23-4.33 (5H, m), 5.40 (1H, m), 7.25-7.33 (8H, m), 7.39 (1H, m), 7.59 (1H, s), 7.73-7.75 (2H, m, J=3.9 Hz).

Example 31

Preparation of a 2-amino-3-(3-(N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)phenyl)benzamide)propanoyloxy)propanoic acid hydrochloric acid salt (Compound No. 5-25)



According to the method of Example 29, a target compound was prepared from tert-butyl 2-(tert-butoxycarbonylamino)-3-(3-(N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)phenyl)benzamide)propanoyloxy)propanoate obtained in Example 30.

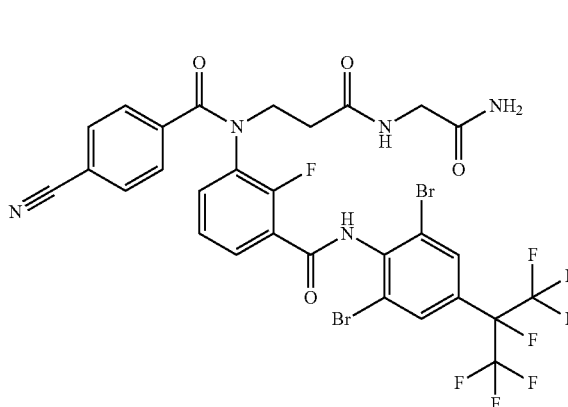
¹H-NMR (DMSO-d₆, ppm) δ 2.22 (6H, s), 2.71-2.76 (2H, m), 4.13-4.19 (2H, m), 4.27-4.33 (2H, m), 4.48-4.51 (1H, m),

406

Example 32

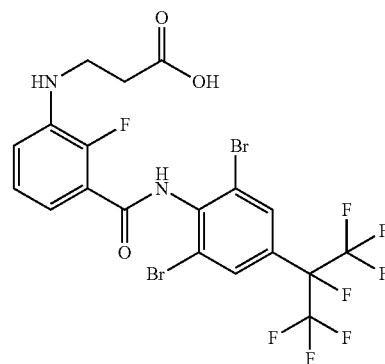
7.21-7.29 (5H, m), 7.40-7.43 (4H, m), 7.78-7.80 (2H, m), 8.50 (3H, broad-s), 10.07 (1H, s).

Preparation of 3-(N-(3-(2-amino-2-oxoethylamino)-3-oxopropyl)-4-cyanobenzamide)-N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide (Compound No. 5-31)



32-1

Preparation of 3-(3-(2,6-dibromo-4-(perfluoropropan-2-yl)phenylcarbamoyl)-2-fluorophenylamino)propanoic acid



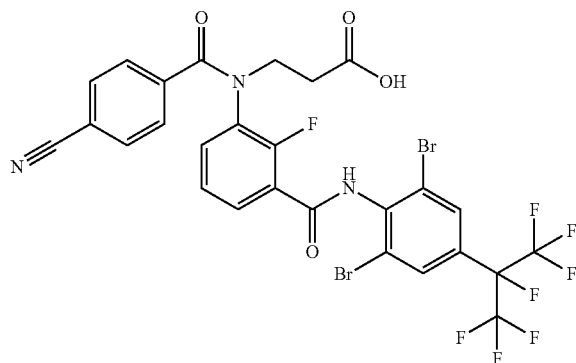
To 4.90 g (8.80 mmol) of 3-amino-N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide obtained in 23-4 of Example 23 was added 6.50 g (90.2 mmol) of acrylic acid, followed by stirring at 60° C. for 1 hour and at 80° C. for 2 hours. To the reaction solution were added water and ethyl acetate, and the organic phase was extracted, washed with saturated brine, and dried over anhydrous magnesium sulfate, and then the solvent was evaporated under reduced pressure. Toluene was added to the residue for the purpose of removing an acrylic acid, and an operation for evaporating the solvent was repeated three times. The obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=3:1→2:1→1:1) to prepare 5.51 g (yield: quantitative) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 2.75 (2H, t, J=6.3 Hz), 3.57 (2H, t, J=6.3 Hz), 6.92-6.97 (1H, m), 7.18-7.20 (1H, m), 7.42-7.45 (1H, m), 7.87 (2H, s), 8.19 (1H, d, J=13.7 Hz). The proton presumed to be indicative of NH and COOH was not detected.

407

32-2

Preparation of 3-(4-cyano-N-(3-(2,6-dibromo-4-(perfluoropropan-2-yl)phenylcarbamoyl)-2-fluorophenyl)benzamide)propanoic acid



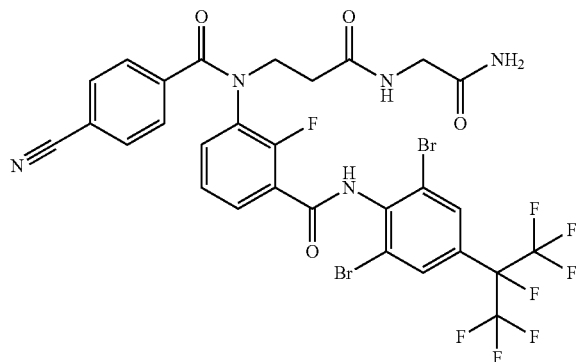
0.180 g (4.50 mmol) of sodium hydroxide was dissolved in 20 mL of water, and 1.00 g (1.59 mmol) of 3-(3-(2,6-dibromo-4-(perfluoropropan-2-yl)phenylcarbamoyl)-2-fluorophenylamino)propanoic acid and 0.530 g (3.20 mmol) of 4-cyanobenzoylchloride were added thereto, followed by stirring at room temperature for 1 day. To the reaction solution were added 4 M hydrochloric acid and ethyl acetate, the organic phase was extracted, washed with saturated brine, then dried over anhydrous magnesium sulfate, and the solvent was evaporated under reduced pressure. The obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=2:1→0:1) to prepare 0.430 g (yield: 36%) of a target compound.

¹H-NMR (CDCl₃+DMSO-d₆, ppm) δ 2.74-2.78 (2H, m), 4.20-4.22 (2H, m), 7.24 (1H, broad-d, J=4.4 Hz), 7.44-7.55 (4H, m), 7.69 (1H, broad-s), 7.87-7.90 (3H, m), 8.95 (1H, broad-d, J=4.4 Hz).

The proton presumed to be indicative of the carboxylic acid was not detected.

32-3

Preparation of 3-(N-(3-(2-amino-2-oxoethylamino)-3-oxopropyl)-4-cyanobenzamide)-N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide (Compound No. 5-31)



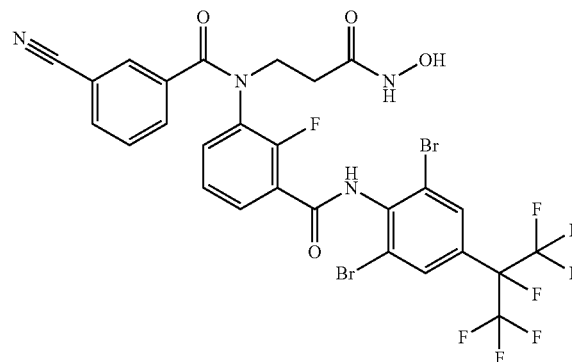
408

To 1 mL of DMF were added 0.120 g (0.160 mmol) of 3-(4-cyano-N-(3-(2,6-dibromo-4-(perfluoropropan-2-yl)phenylcarbamoyl)-2-fluorophenyl)benzamide)propanoic acid, 0.0260 g (0.190 mmol) of a 1-(3-dimethylaminopropyl)-3-ethylcarbodiimide hydrochloric acid salt, and 0.0250 g (0.190 mmol) of 1-hydroxybenzotriazole were added thereto under stirring, and a solution obtained by dissolving 0.0300 g (0.270 mmol) of a glycine amide hydrochloric acid salt and 0.0300 g (0.380 mmol) of triethylamine to 1 mL of DMF was slowly added dropwise thereto, followed by stirring at room temperature for 1 day. To the reaction solution were added 4 M hydrochloric acid and ethyl acetate, and the organic phase was extracted, washed with an aqueous sodium hydrogen carbonate solution and saturated brine, then dried over anhydrous magnesium sulfate. The solvent was evaporated under reduced pressure, and then the obtained residue was washed with IPE to prepare 0.0450 g (yield: 35%) of a target compound.

¹H-NMR (DMSO-d₆, ppm) δ 2.40-2.70 (2H, m), 3.56-3.58 (2H, m), 3.97 (1H, broad-s), 4.10 (1H, broad-s), 7.02 (1H, s), 7.31 (2H, broad-s), 7.45-7.47 (2H, m), 7.61 (1H, broad-s), 7.73-7.75 (3H, m), 7.95 (1H, s), 8.03 (2H, s), 8.25 (1H, broad-s).

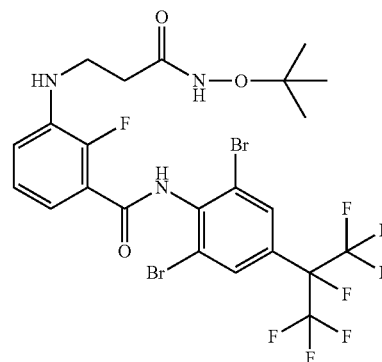
Example 33

Preparation of 3-(3-cyano-N-(3-(hydroxyamino)-3-oxopropyl)benzamide)-N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide (Compound No. 5-33)



33-1

Preparation of 3-(3-(tert-butoxyamino)-3-oxopropylamino)-N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide



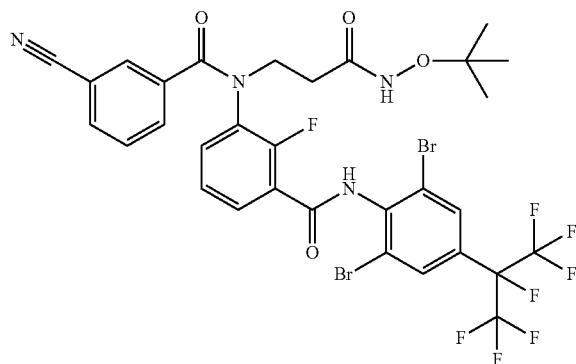
409

To a solution of 3 g of 0.520 g (2.73 mmol) of a (1-(3-dimethylaminopropyl)-3-ethylcarbodiimide hydrochloric acid salt and 0.340 g (2.51 mmol) of 1-hydroxybenzotriazole in 3 g of THF was added 1.43 g (2.28 mmol) of 3-(3-(2,6-dibromo-4-(perfluoropropan-2-yl)phenylcarbamoyl)-2-fluorophenylamino)propanoic acid obtained in 32-1 of Example 32 at 0° C., followed by stirring at the same temperature 1 hour. To the reaction liquid were added 0.430 g (3.42 mmol) of a tert-butoxyamine hydrochloric acid salt and a solution of 0.370 g (3.65 mmol) of triethylamine in 3 g of THF at 0° C., followed by stirring at room temperature for 6 hours and leaving to stand overnight. To the reaction liquid were added water and ethyl acetate, and the organic layer was washed with water and saturated brine, and then dried over anhydrous magnesium sulfate. The solvent was evaporated under reduced pressure and the obtained residue was purified by silica gel column chromatography (developing solvent; dichloromethane:methanol=200:1→50:1) to prepare 0.950 g (yield 60%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 1.26 (9H, s), 2.48-2.49 (1H, m), 2.79-2.80 (1H, m), 3.58-3.59 (2H, m), 4.65 (1H, broad-s), 6.94-6.95 (1H, m), 7.16 (1H, t, J=7.8 Hz), 7.42-7.43 (1H, m), 7.69-7.70 (1H, m), 7.86 (2H, s), 8.20 (1H, d, J=14.1 Hz).

33-2

Preparation of 3-(N-(3-(tert-butoxyamino)-3-oxopropyl)-3-cyanobenzamide)-N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide



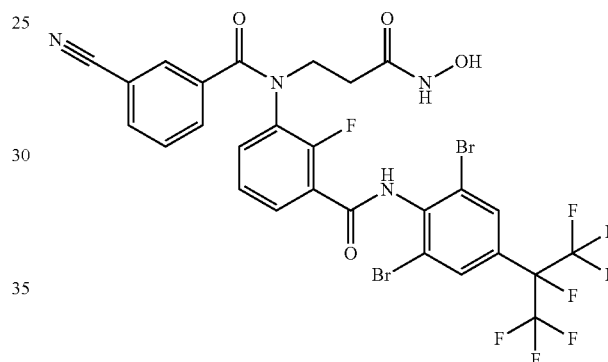
According to the method of 1-5 of Example 1, a target compound was prepared from 3-(3-(tert-butoxyamino)-3-oxopropylamino)-N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide and 3-cyanobenzoylchloride.

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¹H-NMR (CDCl₃, ppm) δ 1.20 (9H, s), 2.68-2.69 (1H, m), 2.74-2.75 (1H, m), 4.23-4.24 (2H, m), 7.29-7.33 (2H, m), 7.47-7.48 (1H, m), 7.57-7.62 (2H, m), 7.72 (1H, s), 7.85 (2H, s), 7.97-8.04 (3H, m).

33-3

Preparation of 3-(3-cyano-N-(3-(hydroxyamino)-3-oxopropyl)benzamide)-N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide (Compound No. 5-33)



To a solution of 0.250 g (0.310 mmol) of 3-(N-(3-(tert-butoxyamino)-3-oxopropyl)-3-cyanobenzamide)-N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide in 5 ml of dichloromethane was added 3.3 ml of trifluoroacetic acid, followed by stirring at room temperature for 7 hours, then stirring at 40° C. for 5 hours and leaving to stand overnight. The reaction liquid was further stirred at 40° C. for 12 hours, and left to stand overnight. The reaction liquid was adjusted to pH 7 by the addition of a 10% aqueous sodium hydroxide solution, and then the organic layer was washed with water and saturated brine, and then dried over anhydrous magnesium sulfate. The solvent was evaporated under reduced pressure and the obtained residue was purified by silica gel column chromatography (developing solvent; ethyl acetate→ethyl acetate:methanol=10:1) to prepare 0.130 g (yield 55%) of a target compound.

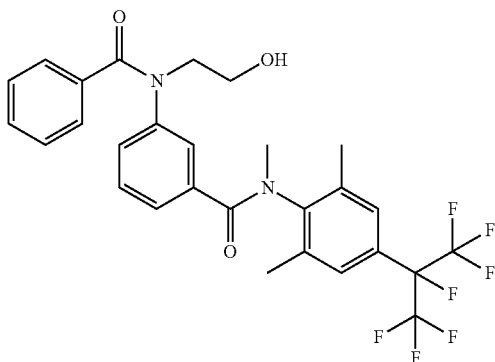
¹H-NMR (CDCl₃, ppm) δ 2.63-2.64 (2H, m), 4.20-4.21 (2H, m), 7.12-7.24 (2H, m), 7.39-7.40 (1H, m), 7.51-7.52

411

(3H, m), 7.69-7.70 (1H, m), 7.81 (2H, s), 7.85-7.86 (1H, m), 7.91-7.92 (1H, m), 8.31-8.32 (1H, m).

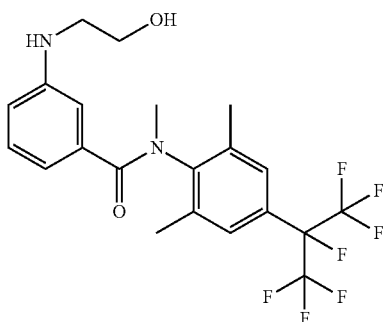
Example 34

Preparation N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-3-(N-(2-hydroxyethyl)benzamide)-N-methylbenzamide (Compound No. 5-35)



34-1

Preparation N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-3-(2-hydroxyethylamino)-N-methylbenzamide



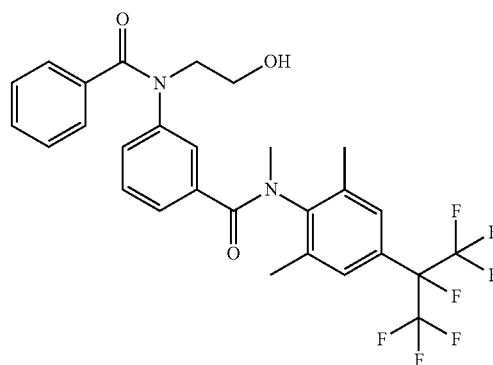
A solution of 0.133 g (0.221 mmol) of methyl 2-(N-3((2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)(methyl)carbamoyl)phenyl)benzamide)acetate obtained in 5-5 of Example 5 in 5 ml of THF was cooled to 0° C., and then 0.0213 g (0.561 mmol) of lithium aluminum hydride was added thereto, followed by stirring at 0° C. for 10 minutes. To the reaction liquid were added water and ethyl acetate, the organic phase was collected by separation, and the organic phase was washed with hydrochloric acid, a saturated aqueous sodium bicarbonate solution, and saturated brine, and dried over anhydrous sodium sulfate. The solvent was removed under reduced pressure. The obtained residue was purified by silica gel column chromatography (developing solvent; ethyl acetate) to prepare 0.0720 g (yield: 57%) of a target compound.

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¹H-NMR (CDCl₃, ppm) δ 2.28 (6H, s), 2.37 (1H, s), 3.08 (2H, t, J=5.4 Hz), 3.31 (3H, s), 3.73 (2H, t, J=5.4 Hz), 3.91 (1H, broad-s), 6.53-6.57 (3H, m), 6.90 (1H, t, J=7.3 Hz), 7.23 (2H, s),

34-2

Preparation N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-3-(N-(2-hydroxyethyl)benzamide)-N-methylbenzamide (Compound No. 5-35)

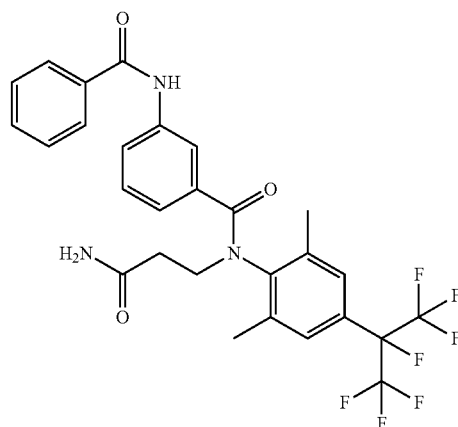


According to the method of 1-5 of Example 1, a target compound was prepared from N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-3-(2-hydroxyethylamino)-N-methylbenzamide.

¹H-NMR (CDCl₃, ppm) δ 2.17 (6H, s), 2.90 (1H, broad-s), 3.28 (3H, s), 3.70-3.72 (2H, m), 3.85-3.92 (2H, m), 6.91-7.07 (3H, m), 7.11-7.39 (8H, m).

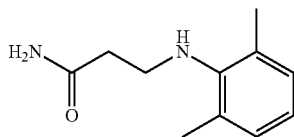
Example 35

N-(3-amino-3-oxopropyl)-3-benzamide-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)benzamide (Compound No. 7-1)



413

35-1

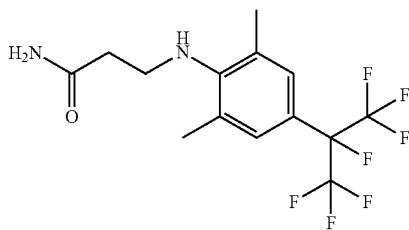
Preparation of 3-(2,6-dimethyl
phenylamino)propanamide

3.00 g (25.0 mmol) of 2,6-dimethyl aniline and 1.88 g (74.0 mmol) of acryl amide were charged to 10 ml of acetic acid, followed by stirring at 100° C. for 4 hours. 1.88 g (74.0 mmol) of acryl amide was further added thereto, followed by stirring for 1 hour. After cooling to room temperature, the mixture was discharged to water, neutralized with potassium carbonate, and extracted with ethyl acetate. The mixture was washed with water twice, and then dried over anhydrous magnesium sulfate, and the solvent was evaporated under reduced pressure. The obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=3:1→0:1) to prepare 2.64 g (yield: 55%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 2.30 (6H, s), 2.46-2.50 (2H, m), 3.25-3.26 (2H, m), 3.57 (1H, broad-s), 5.57 (1H, broad-s), 6.14 (1H, broad-s), 6.83-6.87 (1H, m), 6.99-7.10 (2H, m).

35-2

Preparation of 3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylamino)propanamide



2.30 g (11.9 mmol) of 3-(2,6-dimethyl phenylamino)propanamide was charged to a mixed solution of 20 ml of tert-butyl methyl ether and 20 ml of water, and 2.50 g (14.3 mmol) of 85% sodium hydrosulfite and 0.400 g (1.20 mmol) of tetrabutylammonium hydrogen sulfate were added thereto, and 1.20 g (14.3 mmol) of sodium hydrogen carbonate was added thereto. Then, 4.20 g (14.3 mmol) of heptafluoroisopropyl iodide was added dropwise thereto, followed by stirring at room temperature for 3 hours and performing liquid separation. The mixture was washed with a 5% aqueous hydrochloric acid solution and a saturated aqueous sodium hydrogen carbonate solution in this order, and then dried over anhydrous magnesium sulfate. The solvent was evaporated under reduced pressure, and then the obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=1:1→0:1) to prepare 1.25 g (yield 29%) of a target compound.

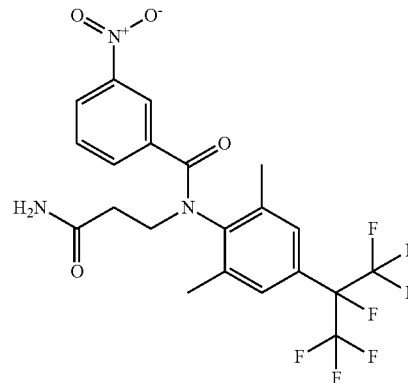
¹H-NMR (CDCl₃, ppm) δ 2.32 (6H, s), 2.47 (2H, t, J=5.9 Hz), 3.35 (2H, t, J=5.9 Hz), 5.55 (1H, broad-s), 5.69 (1H, broad-s), 7.17 (2H, s).

414

The proton presumed to be indicative of NH was not detected.

35-3

Preparation of N-(3-amino-3-oxopropyl)-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-3-nitrobenzamide

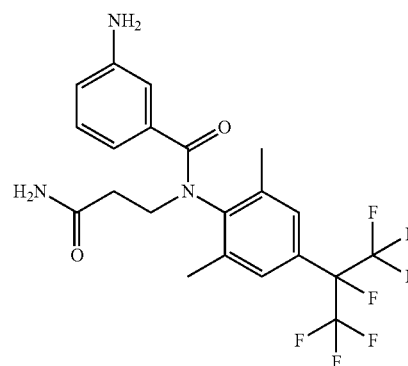


According to the method of 1-1 of Example 1, a target compound was prepared from 3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylamino)propanamide and 3-nitrobenzoyl chloride.

¹H-NMR (CDCl₃, ppm) δ 2.30 (6H, s), 2.78 (2H, t, J=7.8 Hz), 4.09 (2H, t, J=7.8 Hz), 5.50 (1H, broad-s), 6.03 (1H, broad-s), 7.27 (2H, s), 7.34-7.35 (1H, m), 7.55 (1H, dd, J=1.5, 7.8 Hz), 8.04-8.06 (1H, m), 8.13-8.16 (1H, m).

35-4

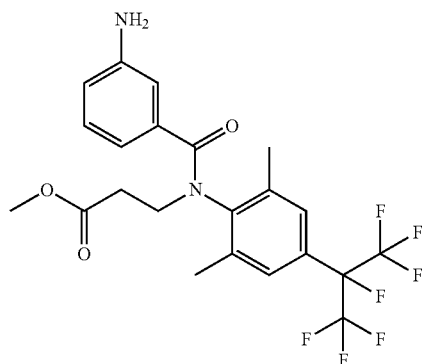
Preparation of 3-amino-N-(3-amino-3-oxopropyl)-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)benzamide (Compound No. 18-72) and methyl 3-(3-amino-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)benzamide)propanoate



Amide body

415

-continued



Ester body

0.300 g (0.590 mmol) of N-(3-amino-3-oxopropyl)-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-3-nitrobenzamide and 0.550 g (2.95 mmol) of stannous chloride were charged to 5 ml of methanol, and 3 ml of concentrated hydrochloric acid was added thereto, followed by stirring at 60° C. for 30 minutes. After cooling to room temperature, ethyl acetate and water were added thereto, followed by neutralization with potassium carbonate. The solid was filtered through Celite, and then subjected to liquid separation, and dried over anhydrous magnesium sulfate. The solvent was evaporated under reduced pressure and the obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=1:2→ethyl acetate:methanol=10:1) to prepare 0.100 g of 3-amino-N-(3-amino-3-oxopropyl)-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)benzamide (amide product: yield: 35%) and 0.160 g of methyl 3-(3-amino-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)benzamide)propanoate (ester product: yield: 56%).

Amide Product

¹H-NMR (CDCl₃, ppm) δ 2.27 (6H, s), 2.72 (2H, t, J=7.8 Hz), 3.57 (2H, broad-s), 4.03 (2H, t, J=7.8 Hz), 5.40 (H, broad-s), 6.37 (1H, broad-s), 6.38-6.41 (1H, m), 6.56-6.59 (1H, m), 6.64-6.65 (1H, m), 6.83 (1H, t, J=7.8 Hz), 7.37 (2H, s).

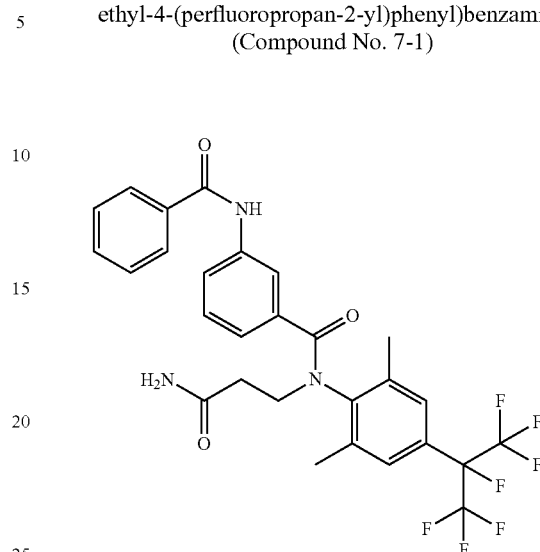
Ester Product

¹H-NMR (CDCl₃, ppm) δ 2.27 (6H, s), 2.82 (2H, t, J=7.3 Hz), 3.56 (2H, broad-s), 3.62 (3H, s), 4.03 (2H, t, J=7.3 Hz), 6.36-6.38 (1H, m), 6.55-6.57 (1H, m), 6.66-6.67 (1H, m), 6.81 (1H, t, J=7.8 Hz), 7.23 (2H, s).

416

35-5

N-(3-amino-3-oxopropyl)-3-benzamide-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)benzamide
(Compound No. 7-1)

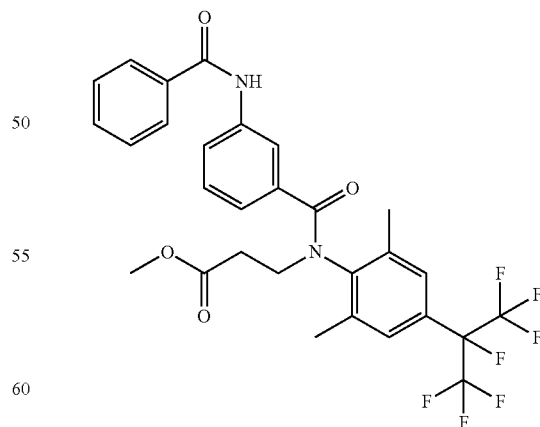


According to the method of 1-5 of Example 1, a target compound was prepared from 3-amino-N-(3-amino-3-oxopropyl)-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)benzamide.

¹H-NMR (CDCl₃, ppm) δ 2.33 (6H, s), 2.72-2.74 (2H, m), 4.02 (2H, m), 6.10 (1H, broad-s), 6.78-6.80 (1H, m), 7.04 (1H, t, J=7.8 Hz), 7.21 (3H, broad-s), 7.35-7.61 (5H, m), 7.87-7.89 (2H, m), 9.80 (1H, broad-s).

Example 36

Preparation of methyl 3-(3-benzamide-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)benzamide)propanoate (Compound No. 7-6)



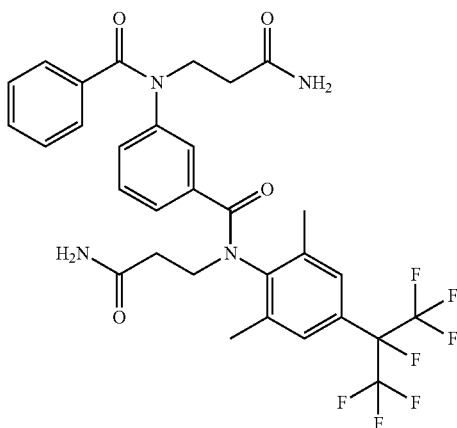
According to the method of 1-5 of Example 1, a target compound was prepared from methyl 3-(3-amino-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)benzamide)propanoate.

417

¹H-NMR (CDCl₃, ppm) δ 2.31 (6H, s), 2.84 (2H, t, J=7.8 Hz), 3.63 (3H, s), 4.07 (2H, t, J=7.8 Hz), 6.87-6.89 (1H, m), 7.10 (1H, t, J=7.8 Hz), 7.24-7.26 (2H, m), 7.46-7.58 (4H, m), 7.65-7.69 (2H, m), 7.77-7.79 (2H, m).

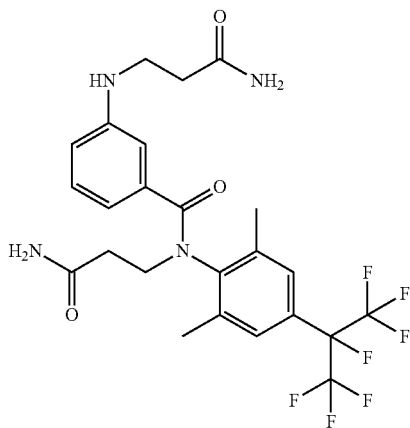
Example 37

Preparation of N-(3-amino-3-oxopropyl)-3-(N-(3-amino-3-oxopropyl)benzamide)-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)benzamide (Compound No. 8-1)



37-1

Preparation of N-(3-amino-3-oxopropyl)-3-(3-amino-3-oxopropylamino)-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)benzamide (Compound No. 18-87)



According to the method of 20-2 of Example 20, a target compound was prepared from 3-amino-N-(3-amino-3-oxopropyl)-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)benzamide obtained in 35-4 of Example 35.

¹H-NMR (CDCl₃, ppm) δ 2.39-2.42 (2H, m), 2.62 (6H, s), 2.72-2.74 (2H, m), 3.19-3.20 (2H, m), 3.99-4.02 (2H, m),

418

4.41 (1H, broad-s), 5.80 (1H, broad-s), 5.84 (1H, broad-s), 6.41 (1H, d, J=7.8 Hz), 6.51-6.54 (2H, m), 6.84-6.88 (3H, m), 7.40 (2H, s).

5

37-2

Preparation of N-(3-amino-3-oxopropyl)-3-(N-(3-amino-3-oxopropyl)benzamide)-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)benzamide (Compound No. 8-1)

10

15

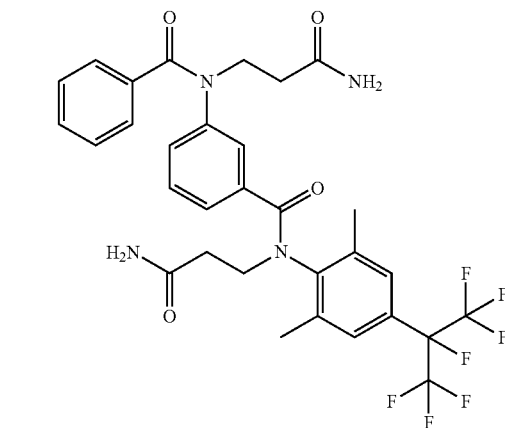
20

25

30

35

40



According to the method of 1-5 of Example 1, a target compound was prepared from N-(3-amino-3-oxopropyl)-3-(3-amino-3-oxopropylamino)-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)benzamide.

¹H-NMR (CDCl₃, ppm) δ 2.11 (6H, s), 2.58 (2H, t, J=6.8 Hz), 2.70 (2H, t, J=6.8 Hz), 3.96-4.05 (4H, m), 5.45 (1H, broad-s), 5.55 (1H, broad-s), 6.20 (1H, broad-s), 6.25 (1H, broad-s), 6.80-6.82 (1H, m), 6.91-6.99 (2H, m), 7.11-7.17 (5H, m), 7.22 (2H, s), 7.30-7.40 (1H, m)

Example 38

Preparation of 3-benzamide-N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-2-fluoro-N-(2-(methylsulfonyl)ethyl)benzamide (Compound No. 7-169)

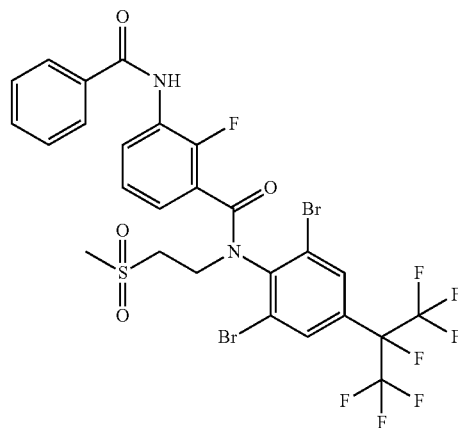
45

50

55

60

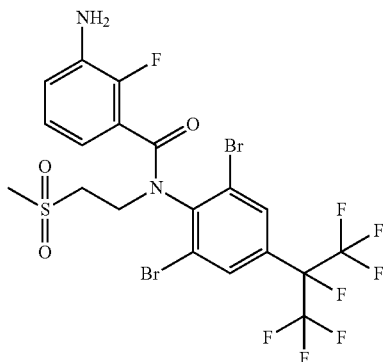
65



419

38-1

Preparation of 3-amino-N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-2-fluoro-N-(2-(methylsulfonyl)ethyl)benzamide (Compound No. 20-36)

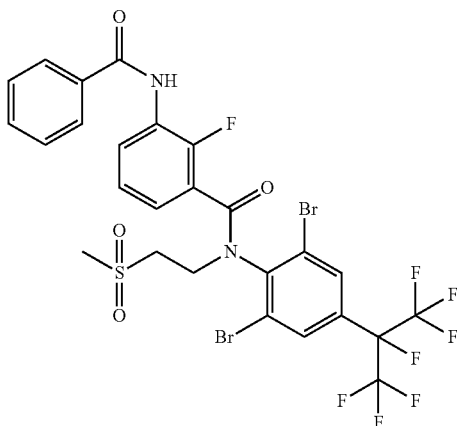


To 0.670 g (1.20 mmol) of 3-amino-N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide obtained in 23-4 of Example 23 was added an aqueous solution obtained by dissolving 0.550 g (5.18 mmol) of methyl vinyl sulfonate and 0.100 g (2.50 mmol) of sodium hydroxide in 2 ml of water, followed by stirring at 60° C. for 3 hours. To the reaction solution were added ethyl acetate and water, and the organic phase was extracted, then washed with saturated brine, and dried over anhydrous magnesium sulfate. Then, the solvent was evaporated under reduced pressure. The obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=4:1→3:1→2:1) to prepare 0.410 g (yield 52%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 3.10 (3H, s), 3.74-3.78 (4H, m), 4.18-4.22 (2H, m), 6.44-6.48 (1H, m), 6.62-6.73 (2H, m), 7.74 (2H, s).

38-2

Preparation of 3-benzamide-N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-2-fluoro-N-(2-(methylsulfonyl)ethyl)benzamide (Compound No. 7-169)



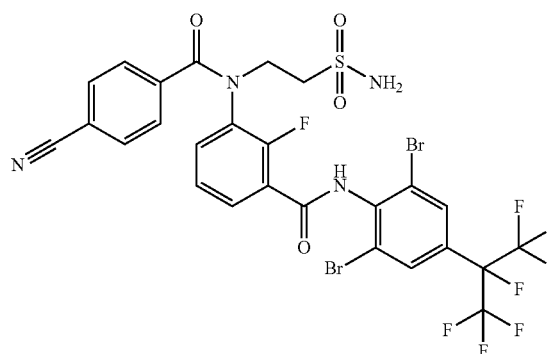
420

According to the method of 1-5 of Example 1, a target compound was prepared from 3-amino-N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-2-fluoro-N-(2-(methylsulfonyl)ethyl)benzamide.

¹H-NMR (CDCl₃, ppm) δ 3.10 (3H, s), 3.74-3.78 (2H, m), 4.20-4.24 (2H, m), 6.85-7.26 (2H, m), 7.51-7.60 (3H, m), 7.78 (2H, s), 7.85-7.87 (2H, m), 8.06 (1H, d, J=3.9 Hz), 8.48-8.50 (1H, m).

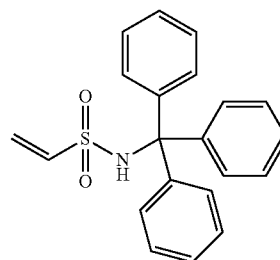
Example 39

Preparation of 3-(4-cyano-N-(2-sulfamoyl)ethyl)benzamide-N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide (Compound No. 2-133)



39-1

Preparation of N-triethylenesulfonamide



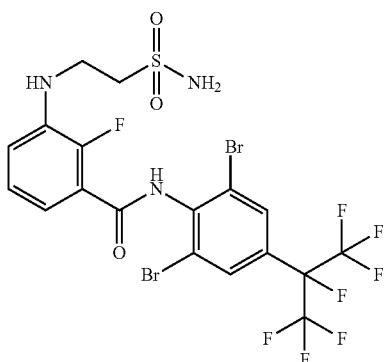
To 90 of a solution of 18.1 g (111 mmol) of 2-chloroethanesulfonylchloride in dichloromethane was charged dropwise 12.4 g (122 mmol) of triethylamine at -60° C., followed by stirring at the same temperature for 30 minutes and at room temperature for 1.5 hours. The reaction liquid was cooled to -60° C., and charged dropwise to 60 g of a solution of 28.8 g (111 mmol) of triethylamine and 11.2 g (111 mmol) of triethylamine in dichloromethane, followed by stirring at the same temperature for 1.5 hours, then stirring at room temperature for 4 hours, and leaving to stand overnight. Water was added to the reaction liquid, and the organic layer was washed with water, and then dried over anhydrous magnesium sulfate. The solvent was evaporated under reduced pressure and the obtained residue was washed with ethyl acetate to prepare 25.2 g (yield 65%) of a target compound.

421

¹H-NMR (CDCl₃, ppm) δ 5.21-5.23 (1H, m), 5.46-5.62 (3H, m), 7.22-7.33 (9H, m), 7.43-7.55 (6H, m).

39-2

Preparation of N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-2-fluoro-3-(2-sulfamoylethylamino) benzamide (Compound No. 19-44)

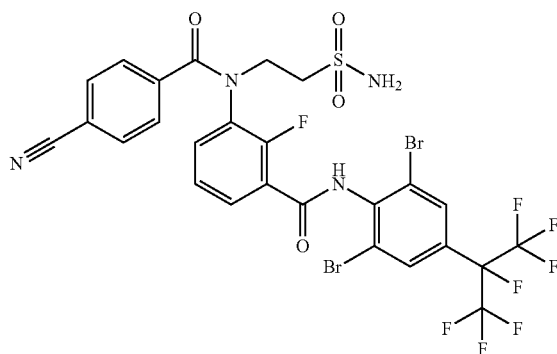


To 5 ml of an aqueous solution of 1.16 g (2.08 mmol) of 3-amino-N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide obtained in 23-4 of Example 23 in 85% aqueous phosphoric acid solution was added 0.800 g (2.29 mmol) of N-triethylenesulfonamide, followed by stirring at 140° C. for 20 hours. To the reaction liquid were added water and ethyl acetate, followed by adjustment to pH 7 with a 10% aqueous sodium hydroxide solution, and then the organic layer was washed with water and saturated brine, and dried over anhydrous magnesium sulfate. The solvent was evaporated under reduced pressure and the obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=4:1) to prepare 0.0300 g (yield 2%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 3.46 (2H, t, J=6.3 Hz), 3.77-3.81 (2H, m), 4.74 (1H, broad-s), 4.80-4.82 (2H, m), 6.92-6.96 (1H, m), 7.19 (1H, t, J=7.8 Hz), 7.44-7.49 (1H, m), 7.86 (2H, s), 8.17 (1H, d, J=13.6 Hz).

39-3

Preparation of 3-(4-cyano-N-(2-sulfamoyl-ethyl)-benzamide)-N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide (Compound No. 2-133)



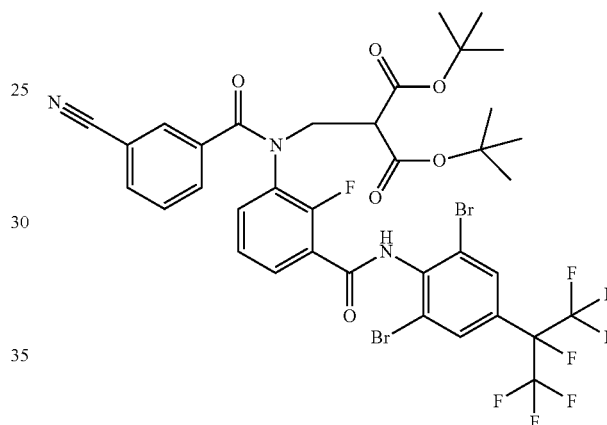
422

According to the method of 1-5 of Example 1, a target compound was prepared from N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-2-fluoro-3-(2-sulfamoylethylamino)benzamide and 4-cyanobenzoylchloride.

⁵ ¹H-NMR (CDCl₃, ppm) δ 3.33-3.41 (2H, m), 3.97-3.99 (1H, m), 5.10-5.15 (1H, m), 5.32 (2H, broad-s), 7.22-7.24 (1H, m), 7.43 (2H, d, J=7.8 Hz), 7.53 (2H, d, J=7.8 Hz), 7.59 (1H, t, J=7.8 Hz), 7.89 (2H, s), 7.97 (1H, d, J=12.2 Hz),
¹⁰ 8.06-8.08 (1H, m).

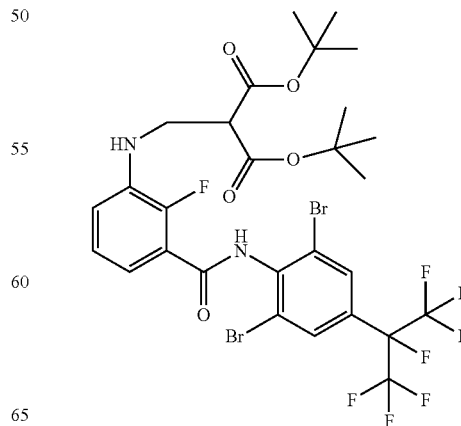
Example 40

15 Preparation of di-tert-butyl 2-((3-cyano-N-(3-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)carbamoyl)-2-fluorophenyl)benzamide)methyl)malonate (Compound No. 6-44)



40-1

Preparation of di-tert-butyl 243-(2,6-dibromo-4-(per-
45 fluoropropan-2-yl)phenylcarbamoyl)-2-fluorophenyl-
lamino)methylmalonate



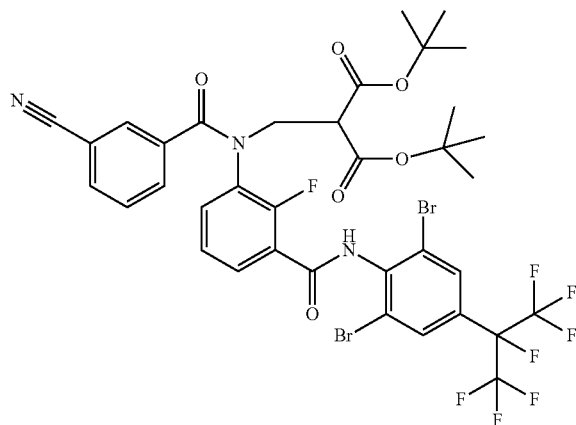
423

To a solution of 0.220 g (1.00 mmol) of di-tert-butyl malonate in 5 ml of acetic acid were added 0.0600 g (2.10 mmol) of paraformaldehyde, 0.0100 g (0.100 mmol) of potassium acetate, and 0.0100 g (0.0500 mmol) of copper acetate monohydrate, followed by stirring at 100° C. for 2.5 hours. To the reaction liquid was added 0.500 g (0.900 mmol) of 3-amino-N-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide obtained in 23-4 of Example 23, followed by stirring for 2.5 hours. The reaction liquid was left to stand at room temperature overnight, and then extracted with a saturated aqueous sodium hydrogen carbonate solution and ethyl acetate. The organic layer was dried over anhydrous magnesium sulfate, the solvent was evaporated under reduced pressure and the obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=8:1→4:1) to prepare 0.230 g (yield 32%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 1.46-1.48 (18H, m), 3.53-3.55 (1H, m), 3.70 (2H, t, J=6.3 Hz), 4.55 (1H, broad-s), 6.98-6.99 (1H, m), 7.17-7.18 (1H, m), 7.42-7.43 (1H, m), 7.86 (2H, s), 8.20-8.22 (1H, m).

40-2

Preparation of di-tert-butyl 2-((3-cyano-N-(3-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)carbamoyl)-2-fluorophenyl)benzamide)methylmalonate (Compound No. 6-44)



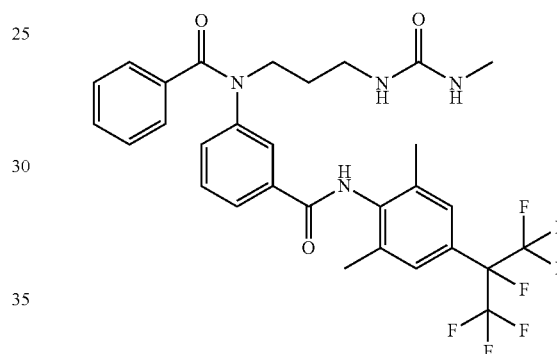
According to the method of 1-5 of Example 1, a target compound was prepared from di-tert-butyl 2-((3-(2,6-dibromo-4-(perfluoropropan-2-yl)phenyl)carbamoyl)-2-fluorophenylamino)methylmalonate and 3-cyanobenzoylchloride.

424

¹H-NMR (CDCl₃, ppm) δ 1.40-1.46 (18H, m), 3.78-3.79 (1H, m), 4.14-4.15 (1H, m), 4.24-4.25 (1H, m), 7.29-7.33 (2H, m), 7.44-7.45 (m), 7.55-7.66 (3H, m), 7.86 (2H, s), 7.94-8.03 (2H, m).

Example 41

Preparation of N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)carbamoyl)phenyl)-N-(3-(3-methylureido)propyl)benzamide (Compound No. 6-49)



To a solution of 0.0200 g (0.0400 mmol) of N-(3-amino-propyl)-N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)carbamoyl)phenyl)benzamide obtained in Example 25 in 5 ml of dichloromethane was added 0.0100 g (0.0500 mmol) of 1,1'-carbonylbis-1H-imidazole, followed by stirring at room temperature for 5.5 hours, and then 0.00300 g (0.0500 mmol) of pyridine and 0.00300 g (0.0400 mmol) of methylamine (40% methanol solution) were added thereto, followed by stirring at room temperature for 3 hours. The reaction liquid was left to stand overnight, followed by addition of water and extraction with ethyl acetate. The organic layer was washed with saturated brine, and then dried over anhydrous magnesium sulfate. The solvent was evaporated under reduced pressure and the obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=1:1→0:1) to prepare 0.0110 g (yield 44%) of a target compound.

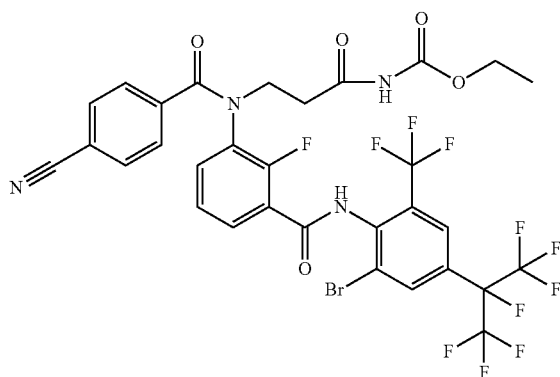
¹H-NMR (CDCl₃, ppm) δ 1.78-1.79 (2H, m), 2.28 (6H, s), 2.44 (3H, d, J=4.9 Hz), 3.36-3.42 (2H, m), 4.09-4.10 (2H, m), 4.20 (1H, broad-s), 4.93 (1H, broad-s), 7.14-7.18 (2H, m),

425

7.21-7.23 (2H, m), 7.27-7.31 (3H, m), 7.39-7.43 (2H, m),
7.81-7.83 (1H, m), 7.87 (1H, s), 8.95 (1H, s).

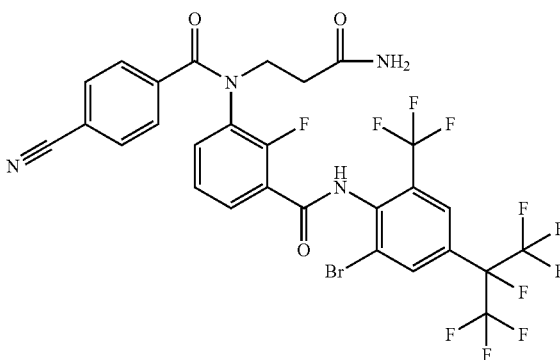
Example 42

Preparation of ethyl 3-(N-(3-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)carbamoyl)-2-fluorophenyl)-4-cyanobenzamide)propanoylcarbamate (Compound No. 5-76)



42-1

Preparation of 3-(N-(3-amino-3-oxopropyl)-4-cyanobenzamide)-N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-2-fluorobenzamide (Compound No. 1-136)



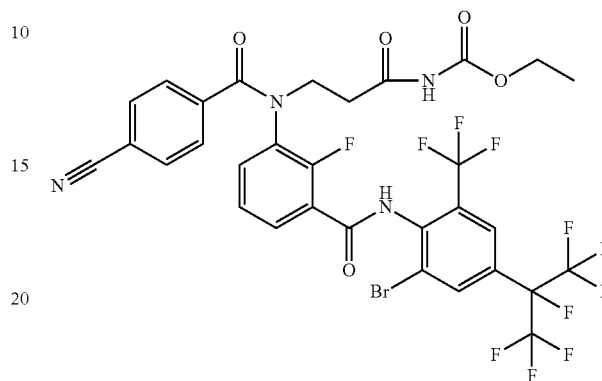
According to the method of 1-5 of Example 1, a target compound was prepared from 3-(3-amino-3-oxopropyl)-amino)-N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-2-fluorobenzamide obtained in 22-6 of Example 22 and 4-cyanobenzoylchloride.

¹H-NMR (CDCl₃, ppm) δ 2.71 (1H, broad-s), 2.85 (1H, broad-s), 4.24 (2H, broad-t, J=6.3 Hz), 5.39 (1H, broad-s), 5.80 (1H, broad-s), 7.32 (1H, t, J=7.8 Hz), 7.42 (2H, d, J=7.8 Hz), 7.52 (2H, broad-d, J=7.8 Hz), 7.58-7.59 (1H, m), 7.91 (1H, s), 7.98-8.08 (2H, m), 8.13 (1H, s)

426

42-2

Preparation of ethyl 3-(N-(3-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)carbamoyl)-2-fluorophenyl)-4-cyanobenzamide)propanoylcarbamate (Compound No. 5-76)

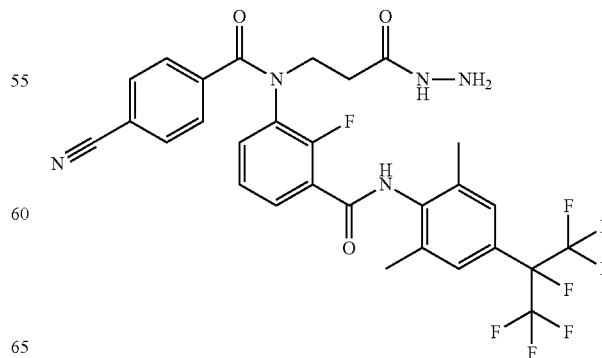


To a solution of 0.0700 g (0.0900 mmol) of 3-(N-(3-amino-3-oxopropyl)-4-cyanobenzamide)-N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-2-fluorobenzamide in 5 ml of THF was added 0.00560 g (0.140 mmol) of sodium hydride, followed by stirring at room temperature for 1 hour, and then to the reaction liquid was added 0.0150 g (0.140 mmol) of ethyl chloroformate, followed by stirring at room temperature for 1 hour. Water was added to the reaction liquid, followed by extraction with ethyl acetate. The organic layer was washed with saturated brine, and then dried over anhydrous magnesium sulfate. The solvent was evaporated under reduced pressure and the obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=3:1) to prepare 0.0750 g (yield 95%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 1.24-1.30 (3H, m), 3.25 (2H, m), 3.37 (2H, m), 4.20 (1H, m), 4.35 (2H, m), 7.29 (3H, m), 7.41 (2H, m), 7.52 (2H, m), 7.91 (1H, m), 8.05 (1H, m), 8.14 (1H, m).

Example 43

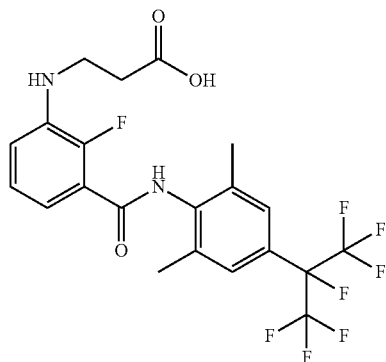
Preparation of 3-(4-cyano-N-(3-hydrazinyl-3-oxopropyl)benzamide)-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide (Compound No. 5-83)



427

43-1

Preparation of 3-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)-2-fluorophenylamino)propanoic acid



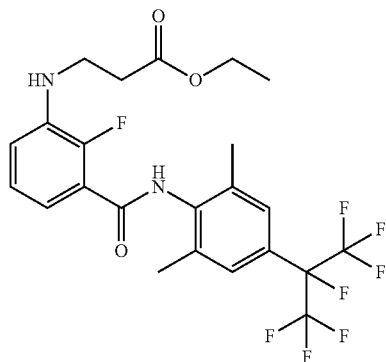
According to the method of 32-1 of Example 32, a target compound was prepared from 3-amino-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide obtained in 1-3 of Example 1.

¹H-NMR (CDCl₃, ppm) δ 2.35 (6H, s), 2.68-2.76 (2H, m), 3.55 (2H, t, J=6.3 Hz), 4.43 (1H, t, J=6.3 Hz), 6.91 (1H, t, J=8.3 Hz), 7.16 (1H, t, J=7.8 Hz), 7.35-7.39 (3H, m), 7.85 (1H, d, J=12.7 Hz).

The proton presumed to be indicative of the carboxylic acid was not detected.

43-2

Preparation of ethyl 3-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)-2-fluorophenylamino)propanoate



To a solution of 4.50 g (9.00 mmol) of 3-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)-2-fluorophenylamino)propanoic acid in 5 ml of THF was added 1.80 g (11.0 mmol) of 1,1'-carbonylbis 1H-imidazole, followed by stirring at room temperature for 20 minutes. To the reaction liquid was added 1.30 g (27.0 mmol) of ethanol, followed by stirring at room temperature for 4 hours, and then leaving to stand overnight at the same temperature. To the reaction liquid were

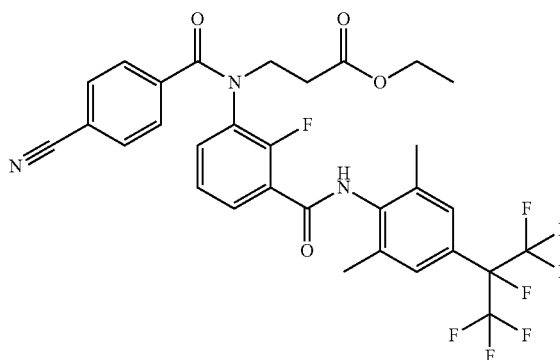
428

sulfate. The solvent was evaporated under reduced pressure and the obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=10:1→8:1) to prepare 3.30 g (yield 68%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 1.28 (3H, t, J=7.3 Hz), 2.36 (6H, s), 2.67 (2H, t, J=6.3 Hz), 3.51-3.56 (2H, m), 4.20 (2H, q, J=7.3 Hz), 4.49 (1H, broad-s), 6.89-6.93 (1H, m), 7.16 (1H, t, J=7.8 Hz), 7.35-7.39 (3H, m), 7.81 (1H, d, J=13.1 Hz).

43-3

Preparation of ethyl 3-(4-cyano-N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)-2-fluorophenyl)benzamide)propanoate

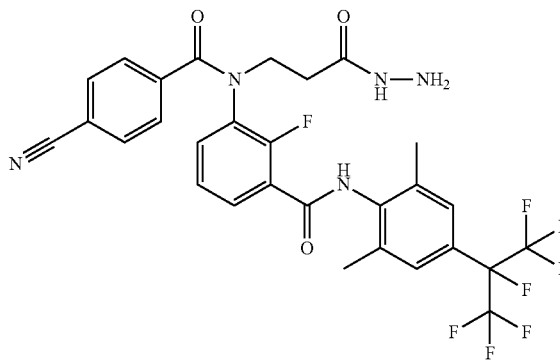


According to the method of 1-5 of Example 1, a target compound was prepared from ethyl 3-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)-2-fluorophenylamino)propanoate and 4-cyanobenzoylchloride.

¹H-NMR (CDCl₃, ppm) δ 1.20 (3H, t, J=6.8 Hz), 2.28 (6H, s), 2.75-2.76 (1H, m), 2.80-2.81 (1H, m), 4.02-4.08 (2H, m), 4.24-4.25 (2H, m), 7.28-7.30 (1H, m), 7.36 (2H, s), 7.44-7.47 (3H, m), 7.51 (2H, d, J=5.8 Hz), 7.58-7.61 (1H, m), 7.99 (1H, t, J=6.8 Hz).

43-4

Preparation of 3-(4-cyano-N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide (Compound No. 5-83)



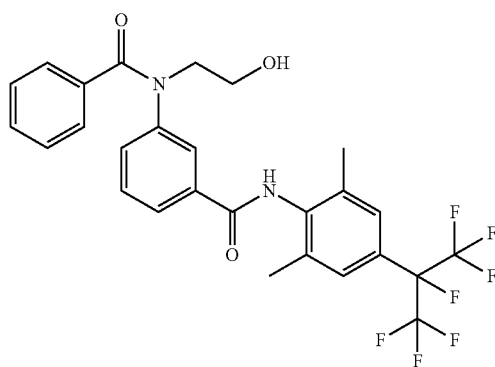
429

To 10 ml of 0.100 g (0.150 mmol) of ethyl 3-(4-cyano-N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)carbamoyl)-2-fluorophenyl)benzamide)propanoate in THF was added 0.120 g (3.00 mmol) of hydrazine (80% aqueous solution), followed by stirring at 60° C. for 8 hours. The reaction liquid was concentrated, and then to the residue was added ethyl acetate, followed by washing with water and saturated brine, and drying over anhydrous magnesium sulfate. The solvent was evaporated under reduced pressure and the obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=1:1) to prepare 0.0270 g (yield 28%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 2.24 (6H, s), 2.65 (2H, m), 3.65 (2H, m), 4.23 (2H, m), 5.35 (1H, m), 7.26-7.53 (6H, m), 7.86-7.93 (4H, m).

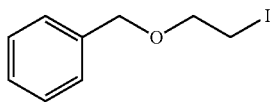
Example 44

Preparation of N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)carbamoyl)phenyl)-N-(2-hydroxyethyl)benzamide (Compound No. 5-5)



44-1

Preparation of ((2-iodoethoxy)methyl)benzene



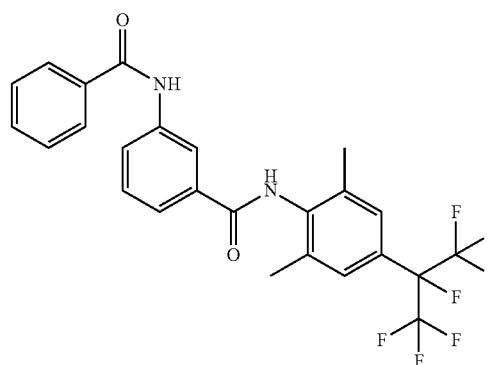
To a solution of 3.00 g (20.0 mmol) of 2-benzyloxy ethanol and 2.30 g (22.0 mmol) of triethylamine in 30 ml of dichloromethane was added 2.50 g (22.0 mmol) of mesyl chloride, followed by stirring at 0° C. for 3 hours. The precipitated solid was removed by filtration, and then the filtrate was concentrated under reduced pressure. To the obtained residue was added 30 ml of acetone, and the precipitated solid was removed by filtration. To the filtrate was added 4.50 g (30.0 mmol) of sodium iodide, followed by stirring at room temperature for 50 hours, the solid was removed by filtration, and the filtrate was concentrated under reduced pressure. The obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=7:1) to prepare 2.70 g (yield 52%) of a target compound.

430

¹H-NMR (CDCl₃, ppm) δ 3.29 (2H, t, J=6.8 Hz), 3.74 (2H, t, J=6.8 Hz), 4.58 (2H, s), 7.29-7.37 (5H, m).

44-2

Preparation of 3-benzamide-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)benzamide

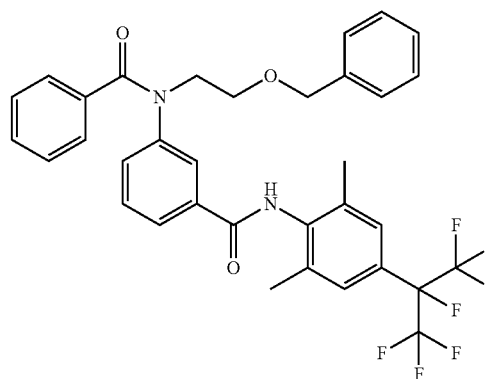


According to the method of 1-5 of Example 1, a target compound was prepared from 3-amino-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)benzamide obtained in 20-1 of Example 20.

¹H-NMR (DMSO-d₆, ppm) δ 2.37 (6H, s), 7.34 (2H, s), 7.46-7.57 (4H, m), 7.75 (1H, d, J=7.8 Hz), 7.98-8.01 (2H, m), 8.12 (1H, d, J=7.3 Hz), 8.34 (1H, s), 8.87 (1H, s), 9.66 (1H, s).

44-3

Preparation of N-(2-(benzyloxy)ethyl)-N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)carbamoyl)phenyl)benzamide (Compound No. 5-74)



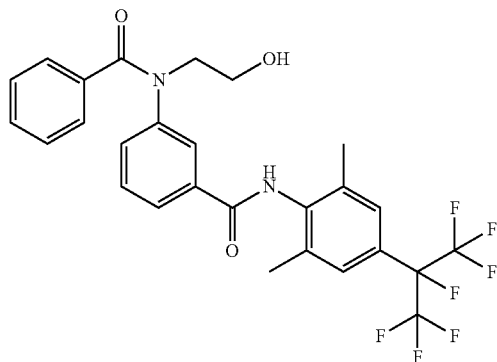
A solution of 0.800 g (1.50 mmol) of 3-benzamide-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)benzamide, 0.600 g (2.30 mmol) of ((2-iodoethoxy)methyl)benzene, and 0.400 g (6.80 mmol) of potassium hydroxide in 10 ml of DMSO was stirred at 100° C. for 4 hours. The solid was removed by filtration, then the filtrate was concentrated under reduced pressure, and the obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=7:1→5:1→3:1) to prepare 0.550 g (yield 56%) of a target compound.

431

¹H-NMR (CDCl₃, ppm) δ 2.29 (6H, s), 3.84 (2H, t, J=5.4 Hz), 4.03 (2H, t, J=5.4 Hz), 4.46 (2H, s), 6.80-7.79 (17H, m).

44-4

Preparation of N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)phenyl)-N-(2-hydroxyethyl)benzamide (Compound No. 5-5)

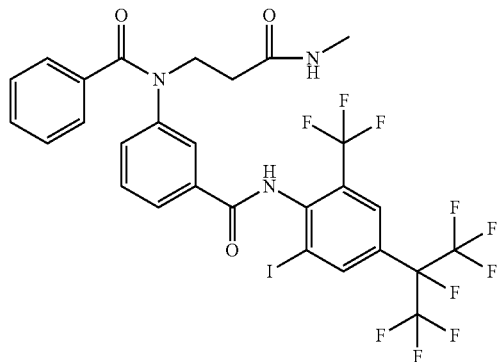


A solution of 0.570 g (0.880 mmol) of N-(2-(benzyloxy)ethyl)-N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)phenyl)benzamide and 10% Pd/C in 15 ml of ethanol was stirred at room temperature for 3 hours under a hydrogen gas. The catalyst was removed by filtration, then the filtrate was concentrated under reduced pressure, and the obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=3:1→2:1) to prepare 0.250 g (yield 51%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 2.37 (6H, s), 3.88-4.01 (5H, m), 6.95 (1H, d, J=7.8 Hz), 7.13 (1H, t, J=7.8 Hz), 7.26 (2H, s), 7.49 (2H, t, J=7.8 Hz), 7.52-7.58 (2H, m), 7.68 (1H, broad-s), 7.72 (1H, t, J=1.9 Hz), 7.77-7.79 (2H, m).

Example 45

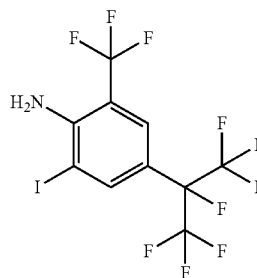
Preparation of N-(3-(2-iodo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenylcarbamoyl)phenyl)-N-(3-(methylamino)-3-oxopropyl)benzamide (Compound No. 5-86)



432

45-1

Preparation of 2-iodo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)aniline (Compound No. 21-10)

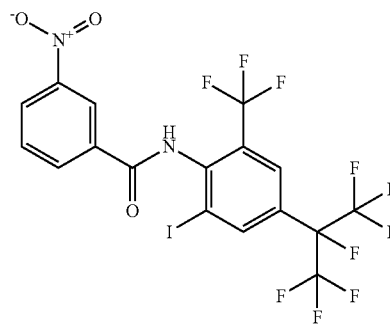


According to the method of 22-2 of Example 22, a target compound was prepared from 4-(perfluoropropan-2-yl)-2-(trifluoromethyl)aniline obtained in 22-1 of Example 22 and N-iodosuccinimide.

¹H-NMR (CDCl₃, ppm) δ 5.04 (2H, broad-s), 7.64 (1H, s), 7.99 (1H, s).

45-2

Preparation of N-(2-iodo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-3-nitrobenzamide (Compound No. 11-12)



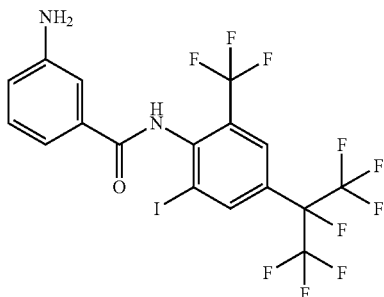
50.0 g (110 mmol) of 2-iodo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)aniline and 24.5 g (0.13 mol) of 3-nitrobenzoyl chloride were dissolved in 75 g of DMI, and reacted at an internal temperature of 100° C. to 105° C. for 8 hours. After cooling to room temperature, to the reaction liquid were added ethyl acetate and a saturated aqueous sodium bicarbonate solution, followed by liquid separation. The organic layer was washed with saturated brine, and then dried over anhydrous sodium sulfate. The solution was concentrated under reduced pressure, and the concentrated residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=3:1) to prepare 52.0 g (yield 78%) of a target compound.

433

¹H-NMR (CDCl₃, ppm) δ 7.76-7.80 (2H, m), 7.97 (1H, s), 8.28-8.30 (1H, m), 8.37 (1H, s), 8.49-8.52 (1H, m), 8.78 (1H, s).

45-3

Preparation of 3-amino-N-(2-iodo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)benzamide (Compound No. 12-8)

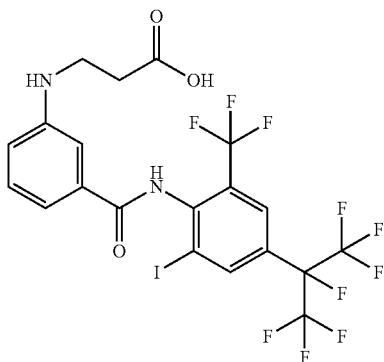


According to the method of 1-3 of Example 1, a target compound was prepared from N-(2-iodo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-3-nitrobenzamide.

¹H-NMR (CDCl₃, ppm) δ 3.89 (2H, broad-s), 6.89-6.92 (1H, m), 7.23-7.32 (3H, m), 7.68 (1H, s), 7.93 (1H, s), 8.34-8.36 (1H, m).

45-4

Preparation of 3-(3-(2-iodo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenylcarbamoyl)phenylamino)propanoic acid



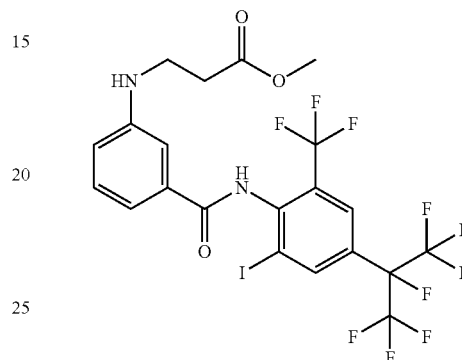
According to the method of 32-1 of Example 32, a target compound was prepared from 3-amino-N-(2-iodo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)benzamide.

434

¹H-NMR (DMSO-d₆, ppm) δ 2.50-2.55 (2H, m), 3.30-3.33 (2H, m), 5.96 (1H, broad-s), 6.80-6.83 (1H, m), 7.13-7.17 (2H, m), 7.23-7.27 (1H, m), 7.95 (1H, s), 8.49 (1H, s), 10.42 (1H, s), 12.28 (1H, broad-s).

45-5

Preparation of methyl 3-(3-(2-iodo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenylcarbamoyl)phenylamino)propanoate

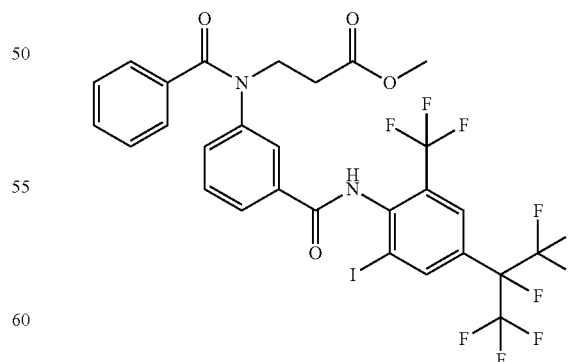


10 ml of methanol was cooled to 0° C., and 0.510 g (4.30 mmol) of thionyl chloride was added dropwise thereto, followed by stirring as it was for 10 minutes. Then, 0.690 g (1.10 mmol) of 3-(3-(2-iodo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenylcarbamoyl)phenylamino)propanoic acid was added thereto, followed by leaving to stand at room temperature overnight. The solvent was evaporated under reduced pressure to prepare 0.710 g (yield 97%) of a target compound.

APCI-MS m/z (M+1):661

45-6

Preparation of methyl 3-(N-(3-(2-iodo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenylcarbamoyl)phenyl)benzamide)propanoate (Compound No. 5-80)



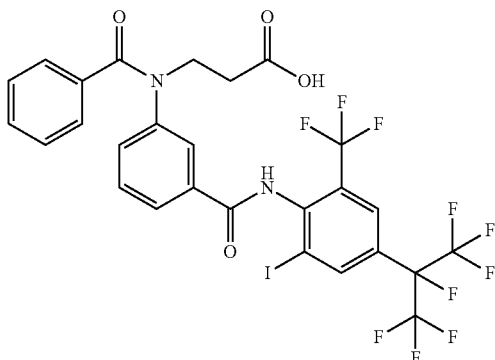
According to the method of 1-5 of Example 1, a target compound was prepared from methyl 3-(3-(2-iodo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenylcarbamoyl)phenylamino)propanoate.

435

¹H-NMR (DMSO-d₆, ppm) δ 2.66-2.70 (2H, m), 3.54 (3H, s), 4.12-4.15 (2H, m), 7.21-7.29 (5H, m), 7.45-7.47 (2H, m), 7.72 (1H, s), 7.76 OIL d, J=7.3 Hz), 7.95 (1H, s), 8.51 (1H, s), 10.59 (1H, s)

45-7

3-(N-(3-(2-iodo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)carbamoyl)phenyl)benzamide)propanoic acid (Compound No. 5-88)

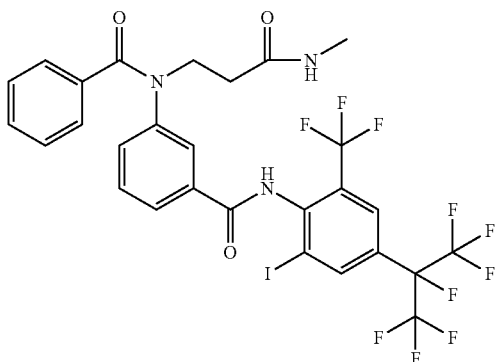


According to the method of Example 2, a target compound was prepared from methyl 3-(N-(3-(2-iodo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)carbamoyl)phenyl)benzamide)propanoate.

¹H-NMR (DMSO-d₆, ppm) δ 2.58-2.62 (2H, m), 4.02-4.11 (2H, m), 7.21-7.30 (5H, m), 7.46-7.49 (2H, m), 7.74-7.76 (2H, m), 7.95 (1H, s), 8.51 (1H, s), 10.6 (1H, broad-s), 12.5 (1H, broad-s)

45-8

Preparation of N-(3-(2-iodo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)carbamoyl)phenyl)-N-(3-(methylamino)-3-oxopropyl)benzamide (Compound No. 5-86)



According to the method of Example 28, a target compound was prepared from 3-(N-(3-(2-iodo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)carbamoyl)phenyl)benzamide)propanoic acid and methylamine (40% aqueous solution).

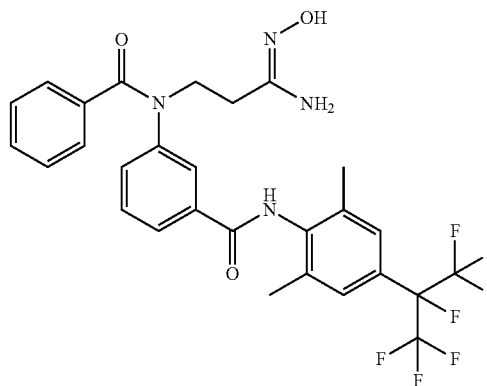
436

¹H-NMR (DMSO-d₆, ppm) δ 2.44-2.46 (2H, m), 3.33 (3H, s), 4.02-4.09 (2H, m), 7.23-7.28 (5H, m), 7.46-7.47 (2H, m), 7.68 (1H, broad-s), 7.74-7.76 (1H, m), 7.91-7.92 (1H, m), 7.95 (1H, s), 8.50 (1H, s), 10.57 (1H, s)

5

Example 46

Preparation of N-(3-amino-3-(hydroxyimino)propyl)-N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)carbamoyl)phenyl)benzamide (Compound No. 5-91)



A solution of 0.200 g (0.350 mmol) of N-(2-cyanoethyl)-N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)carbamoyl)phenyl)benzamide obtained in Example 24, 0.0800 g (0.800 mmol) of sodium carbonate, and 0.0500 g (0.700 mmol) of hydroxylamine-hydrate in ethanol 2 ml/water 2 ml was stirred at 80° C. for 5 hours. To the reaction liquid was added water, followed by extraction with ethyl acetate. The organic layer was dried over anhydrous sodium sulfate. The solution was evaporated under reduced pressure, the obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=1:1→0:1) to prepare 0.0200 g (yield 10%) of a target compound.

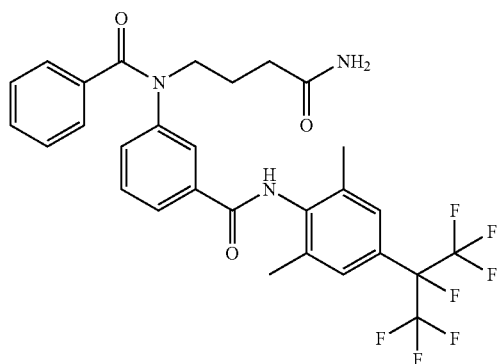
¹H-NMR (CDCl₃, ppm) δ 2.19 (1/2*6 H, s), 2.24 (1/2*6 H, s), 2.42 (1/2*2H, t, J=6.8

437

Hz), 2.67 (1/2*2H, t, J=6.8 Hz), 4.11 (1/2*2H, t, J=6.8 Hz), 4.26 (1/2*2H, t, J=6.8 Hz), 4.75 (1H, s), 5.69 (1/2*1H, broad-s), 6.30 (1/2*1H, broad-s), 7.12-7.95 (13H, m).

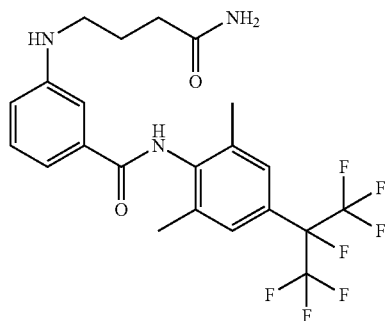
Example 47

Preparation of N-(4-amino-4-oxobutyl)-N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)phenyl)benzamide (Compound No. 6-16)



47-1

Preparation of 3-(4-amino-4-oxobutylamino)-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)benzamide



A solution of 0.270 g (0.470 mmol) of 3-(3-cyanopropylamino)-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)benzamide in 5 g of sulfuric acid was stirred at 100° C. for 30 minutes. To the reaction liquid was added an aqueous sodium hydrogen carbonate solution, followed by extraction with ethyl acetate. The organic layer was dried over anhydrous sodium sulfate. The solution was evaporated under reduced pressure and the obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=1:1→0:1) to prepare 0.18 g (yield 78%) of a target compound.

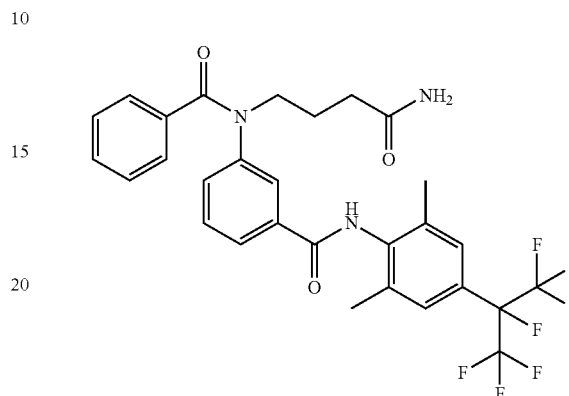
¹H-NMR (CDCl₃, ppm) δ 2.00 (2H, quintet, J=6.8 Hz), 2.35 (6H, s), 2.36 (2H, t, J=6.8 Hz), 3.26 (2H, t, J=6.8 Hz), 4.14 (1H, broad-s), 5.30 (1H, broad-s), 5.48 (1H, broad-s),

438

6.80 (1H, dd, J=1.5, 7.8 Hz), 7.21 (1H, d, J=7.8 Hz), 7.26-7.28 (2H, m), 7.34 (2H, s), 7.71 (1H, s).

47-2

Preparation of N-(4-amino-4-oxobutyl)-N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)phenyl)benzamide (Compound No. 6-16)

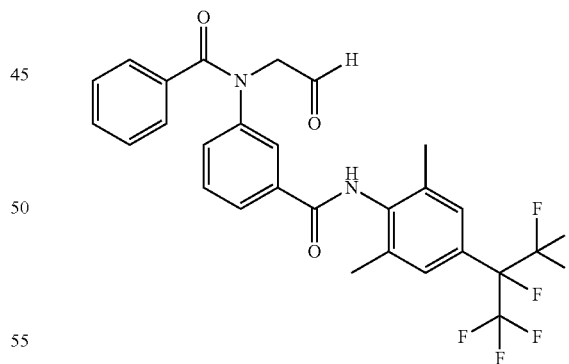


According to the method of 1-5 of Example 1, a target compound was prepared from 3-(4-amino-4-oxobutylamino)-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)benzamide.

¹H-NMR (CDCl₃, ppm) δ 2.08 (2H, quintet, J=6.8 Hz), 2.31 (6H, s), 2.40 (2H, t, J=6.8 Hz), 4.08 (2H, t, J=6.8 Hz), 5.32 (1H, broad-s), 6.02 (1H, broad-s), 7.14-7.34 (9H, m), 7.74 (1H, d, J=7.8 Hz), 7.80 (1H, s), 8.10 (1H, s).

Example 48

Preparation of N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)phenyl)-N-(2-oxoethyl)benzamide (Compound No. 6-59)



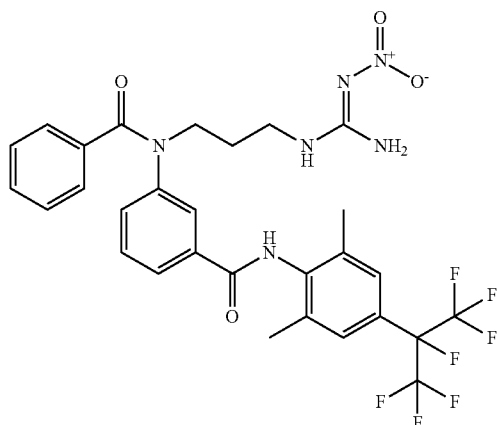
A solution of 0.100 g (0.280 mmol) of N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)phenyl)-N-(2-hydroxyethyl)benzamide obtained in 44-4 of Example 44 and 0.350 g (0.900 mmol) of 98% PDC in 10 ml of dichloromethane was stirred at room temperature for 10 hours. After filtration through Celite, the filtrate was concentrated under reduced pressure, and then the obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=1:1→0:1) to prepare 0.0700 g (yield 44%) of a target compound.

439

¹H-NMR (CDCl₃, ppm) δ 2.36 (6H, s), 4.27 (2H, s), 6.97 (1H, d, J=7.8 Hz), 7.14 (1H, t, J=7.8 Hz), 7.28 (2H, s), 7.47 (2H, t, J=7.8 Hz), 7.55 (1H, t, J=7.8 Hz), 7.61 (1H, dd, J=1.5, 7.8 Hz), 7.73-7.82 (4H, m), 9.85 (1H, s).

Example 49

Preparation of N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)phenyl)-N-(3-(2-nitroguanidino)propyl)benzamide (Compound No. 6-61)

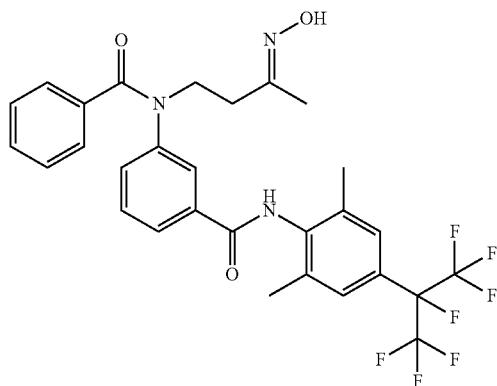


A solution of 0.100 g (0.180 mmol) of N-(3-aminopropyl)-N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)phenyl)benzamide obtained in Example 25 and 0.0500 g (0.370 mmol) of S-methylnitrothiourea in 30 ml of ethanol was stirred at 60° C. for 5 hours. The solvent was evaporated under reduced pressure to prepare 0.0800 g (yield 67%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 1.90 (2H, broad-s), 2.02-2.07 (2H, m), 2.26 (6H, s), 3.41 (2H, q, J=6.4 Hz), 4.13 (2H, t, J=6.4 Hz), 7.16-7.82 (12H, m), 8.56 (1H, s).

Example 50

Preparation of N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)phenyl)-N-(3-(hydroxyimino)butyl)benzamide (Compound No. 5-105)



440

50-1

Preparation of N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-3-(3-oxobutylamino)benzamide

5

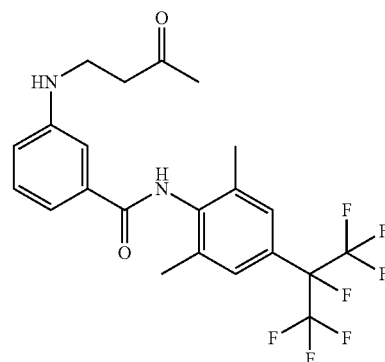
10

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20

25

30



According to the method of 20-2 of Example 20, a target compound was prepared from 3-amino-N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)benzamide and 1-buten-3-one obtained in 20-1 of Example 20.

¹H-NMR (CDCl₃, ppm) δ 2.19 (3H, s), 2.35 (6H, s), 2.78 (2H, t, J=5.9 Hz), 3.48 (2H, broad-s), 4.27 (1H, broad-s), 6.78 (1H, dd, J=2.4, 7.8 Hz), 7.15-7.35 (6H, m).

50-2

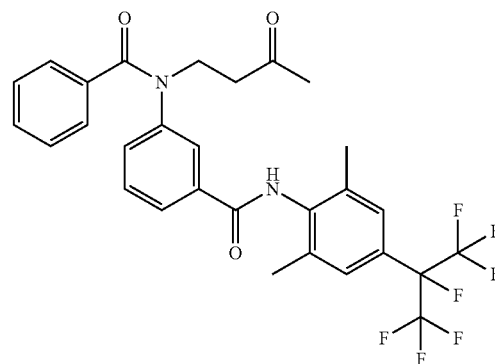
Preparation of N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)phenyl)-N-(3-oxobutyl)benzamide (Compound No. 5-100)

45

50

55

60



65

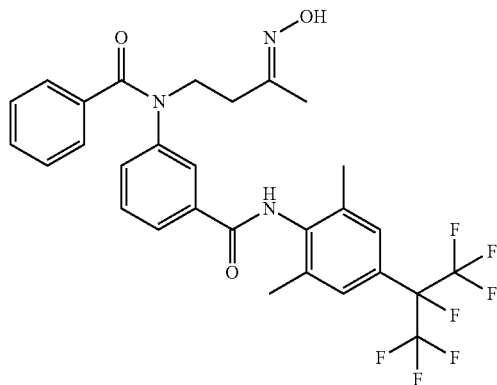
According to the method of 1-5 of Example 1, a target compound was prepared from N-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenyl)-3-(3-oxobutylamino)benzamide.

441

¹H-NMR (CDCl₃, ppm) δ 2.17 (3H, s), 2.28 (6H, s), 2.92 (2H, t, J=6.8 Hz), 4.25 (2H, t, J=6.8 Hz), 7.18-7.39 (10H, m), 7.58 (1H, s), 7.69 (1H, d, J=7.8 Hz).

50-3

Preparation of N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)phenyl)-N-(3-(hydroxyimino)butyl)benzamide (Compound No. 5-105)

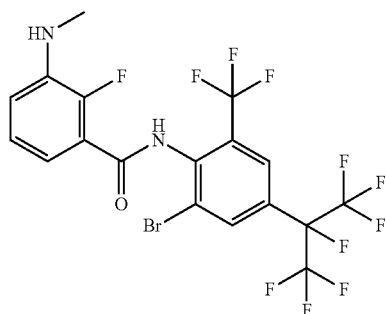


According to the method of Example 46, a target compound was prepared from N-(3-(2,6-dimethyl-4-(perfluoropropan-2-yl)phenylcarbamoyl)phenyl)-N-(3-oxobutyl)benzamide.

¹H-NMR (CDCl₃, ppm) δ 1.82 (3/4*3 H, s), 1.92 (1/4*3 H, s), 2.24 (3/4*6 H, s), 2.26 (1/4*6 H, s), 2.58 (3/4*2H, t, J=6.8 Hz), 2.78 (1/4*2H, t, J=6.8 Hz), 4.21 (2H, t, J=6.8 Hz), 7.18-7.71 (13H, m).

Example 51

Preparation of N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-2-fluoro-3-(methylamino)benzamide (Compound No. 13-40)



0.930 g (1.71 mmol) of 3-amino-N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-2-fluorobenzamide obtained in 22-5 of Example 22 was added to 5 ml of concentrated sulfuric acid, and 10 ml of a 37% aqueous formaldehyde solution was charged dropwise thereto at 40° C. The reaction liquid was poured into ice-water, adjusted to pH 10 with an aqueous sodium hydroxide solution, and extracted by the addition of ethyl acetate. The organic layer was washed with a 20% aqueous sodium hydroxide solution

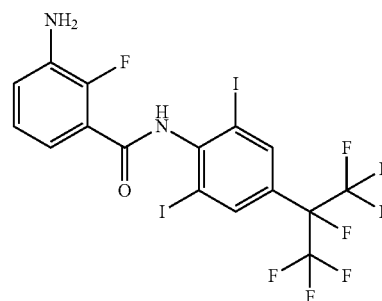
442

and saturated brine, and then dried over anhydrous magnesium sulfate. The solvent was evaporated under reduced pressure and the obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=8:1) to prepare 0.690 g (yield 72%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 2.94 (3H, s), 4.14 (1H, broad-s), 6.88-6.93 (1H, m), 7.18 (1H, t, J=7.8 Hz), 7.37-7.41 (1H, m), 7.90 (1H, s), 8.13 (1H, s), 8.27 (1H, d, J=14.6 Hz).

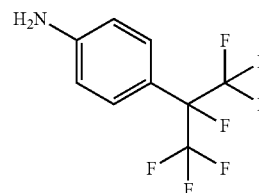
Example 52

Preparation of 3-amino-N-(2,6-diiodo-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide (Compound No. 12-27)



52-1

Preparation of 4-(perfluoropropan-2-yl)aniline



100 g (1.02 mol) of aniline, 230 g (1.12 mol) of 85% sodium hydrosulfite, and 35.1 g (0.100 mol) of tetrabutylammonium hydrogen sulfate were charged to a mixed solution of 1500 ml of t-butyl methyl ether and 1500 ml of water, and 94.7 g (1.12 mol) of sodium hydrogen carbonate was added thereto. 350 g (1.12 mol) of heptafluoroisopropyl iodide was added dropwise thereto at room temperature, followed by stirring at room temperature for 6 hours. After the liquid separation, the organic layer was washed with 1 N hydrochloric acid, water, and a saturated aqueous sodium hydrogen carbonate solution, and then dried over anhydrous sodium sulfate. The solvent was evaporated under reduced pressure, and 500 ml of ethyl acetate was charged thereto. 255 g (1.02 mol) of a 4 M hydrogen chloride/ethyl acetate solution was added dropwise thereto, followed by stirring at room temperature for 30 minutes and at 5° C. for 1 hour. The precipitated solid was separated by filtration, and the solid was charged to 1000 ml of ethyl acetate, and adjusted to pH 8 to 9 by the addition of a saturated aqueous sodium hydrogen carbonate solution at 20° C. or lower, and subjected to liquid separation. The organic layer was dried over anhydrous

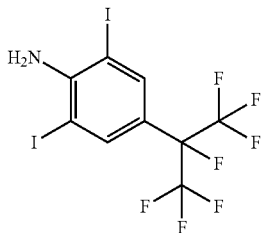
443

sodium sulfate, and then the solvent was evaporated under reduced pressure to prepare 188 g (yield 71%) of a target compound.

$^1\text{H-NMR}$ (CDCl_3 , ppm) δ 3.92 (2H, broad-s), 6.69-6.74 (2H, m), 7.35 (2H, d, $J=9.3$ Hz).

52-2

Preparation of
2,6-diiodo-4-(perfluoropropan-2-yl)aniline

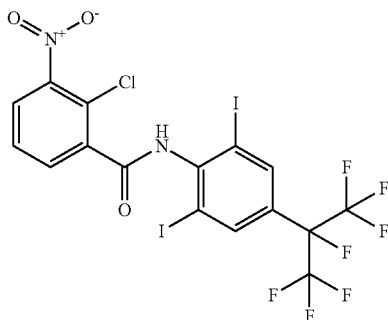


To a solution of 5.74 g (22.0 mmol) of 4-(perfluoropropan-2-yl)aniline in 50 ml of ethanol was added 2.16 g (22.0 mmol) of concentrated sulfuric acid at 5° C. The reaction liquid was warmed to room temperature, and 10.0 g (44.0 mmol) of N-iodosuccinimide was added thereto, followed by stirring for 3 hours. The reaction liquid was poured into a saturated aqueous sodium hydrogen carbonate solution for neutralization. The precipitated crystals were filtered, washed with water, and then dried to prepare 9.00 g (yield 80%) of a target compound.

$^1\text{H-NMR}$ (CDCl_3 , ppm) δ 4.95 (2H, broad-s), 7.79 (2H, s).

52-3

Preparation of 2-chloro-N-(2,6-diiodo-4-(perfluoropropan-2-yl)phenyl)-3-nitrobenzamide (Compound No. 11-25)



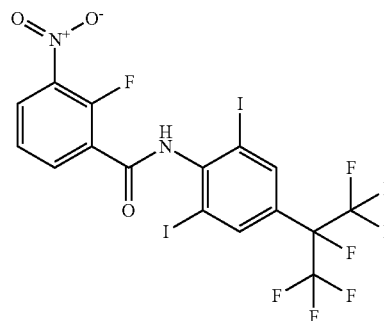
To a solution of 40.0 g (78.0 mmol) of 2,6-diiodo-4-(perfluoropropan-2-yl)aniline in 100 ml of DMI was added 20.6 g (94.0 mmol) of 2-chloro-3-nitrobenzoyl chloride, followed by stirring at 135° C. for 3 hours. After cooling to room temperature, the reaction liquid was poured into 1000 ml of water. After extraction with the addition of 1000 ml of ethyl acetate, the organic layer was washed with water, and then dried over anhydrous magnesium sulfate. The solvent was evaporated under reduced pressure and the obtained residue was washed with hexane to prepare 56.2 g (yield 99%) of a target compound.

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$^1\text{H-NMR}$ (CDCl_3 , ppm) δ 7.58 (1H, t, $J=8.3$ Hz), 7.70 (1H, d, $J=3.4$ Hz), 7.93 (1H, dd, $J=1.5, 6.3$ Hz), 8.08-8.10 (1H, m), 8.13 (2H, s).

52-4

Preparation of N-(2,6-diiodo-4-(perfluoropropan-2-yl)phenyl)-2-fluoro-3-nitrobenzamide (Compound No. 11-52)

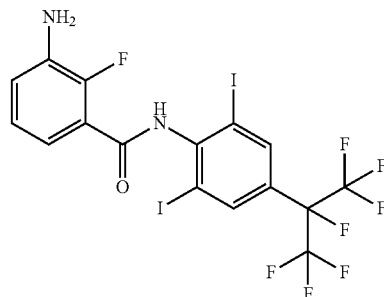


According to the method of 1-2 of Example 1, a target compound was prepared from 2-chloro-N-(2,6-diiodo-4-(perfluoropropan-2-yl)phenyl)-3-nitrobenzamide.

$^1\text{H-NMR}$ (CDCl_3 , ppm) δ 7.52-7.55 (1H, m), 8.12-8.18 (3H, m), 8.29-8.32 (1H, m), 8.48-8.51 (1H, m).

52-5

Preparation of 3-amino-N-(2,6-diiodo-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide (Compound No. 12-27)



According to the method of 1-3 of Example 1, a target compound was prepared from N-(2,6-diiodo-4-(perfluoropropan-2-yl)phenyl)-2-fluoro-3-nitrobenzamide.

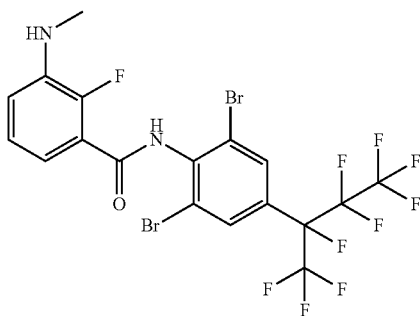
$^1\text{H-NMR}$ (CDCl_3 , ppm) δ 3.93 (2H, broad-s), 6.99-7.04 (1H, m), 7.08 (1H, t, $J=7.8$ Hz).

445

(Hz), 7.39-7.43 (1H, m), 8.10 (2H, s), 8.72 (1H, d, J=11.2 Hz).

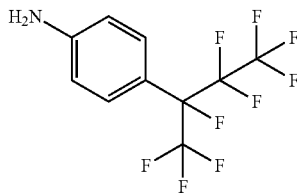
Example 53

Preparation of -(2,6-dibromo-4-(perfluorobutan-2-yl)phenyl)-2-fluoro-3-(methylamino)benzamide (Compound No. 13-32)



53-1

Preparation of 4-(perfluorobutan-2-yl)aniline



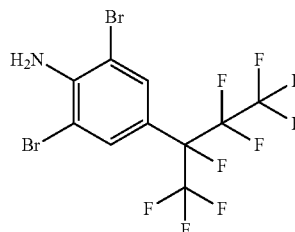
4.90 g (52.6 mmol) of aniline, 10.1 g (58.0 mmol) of 85% sodium hydrosulfite, and 1.90 g (5.77 mmol) of tetrabutylammonium hydrogen sulfate were charged to a mixed solution of 150 ml of t-butyl methyl ether and 150 ml of water using a light-shield reaction vessel, and 4.84 g (57.6 mmol) of sodium hydrogen carbonate was added thereto. 20.0 g (57.8 mmol) of nonafluoro-s-butyl iodide was added dropwise thereto at room temperature, followed by stirring at room temperature for 5 hours. The organic phase was collected by separation, washed with 2 mol/L of an aqueous hydrochloric acid solution twice, and then washed with saturated brine, an aqueous sodium hydrogen carbonate solution, and saturated brine. The organic layer was dried over anhydrous magnesium sulfate, and then the solvent was evaporated under reduced pressure to prepare 8.32 g (yield 51%) of a target compound.

446

¹H-NMR (CDCl₃, ppm) δ 3.92 (2H, broad-s), 6.72 (2H, d, J=8.8 Hz), 7.34 (2H, d, J=8.8 Hz).

53-2

Preparation of 2,6-dibromo-4-(perfluorobutan-2-yl)aniline

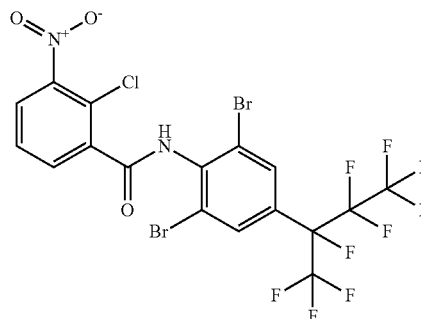


According to the method of 23-1 of Example 23, a target compound was prepared from 4-(perfluorobutan-2-yl)aniline.

¹H-NMR (CDCl₃, ppm) δ 4.89 (2H, broad-s), 7.57 (2H, s).

53-3

Preparation of 2-chloro-N-(2,6-dibromo-4-(perfluorobutan-2-yl)phenyl)-3-nitrobenzamide (Compound No. 11-29)



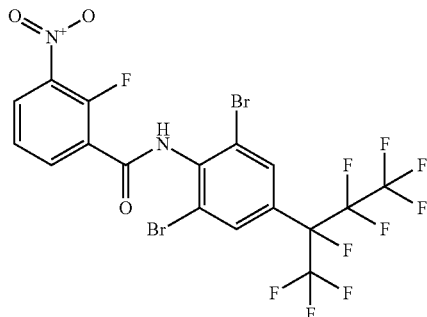
To 27 ml of DMI were added 9.90 g (21.1 mmol) of 2,6-dibromo-4-(perfluorobutan-2-yl)aniline and 4.60 g (20.9 mmol) of 2-chloro-3-nitrobenzoyl chloride, followed by stirring at 140° C. for 4 hours. To the reaction solution were added water and ethyl acetate, and the organic phase was extracted, washed with 1 mol/L of an aqueous sodium hydroxide solution and saturated brine, and dried over anhydrous magnesium sulfate. Then, the solvent was evaporated under reduced pressure. The obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=20:1→10:1→5:1→3:1) to prepare 5.44 g (yield 40%) of a target compound.

447

¹H-NMR (CDCl₃, ppm) δ 7.52-7.61 (2H, m), 7.89 (2H, s), 7.94 (1H, dd, J=1.5, 8.3 Hz), 7.99 (1H, d, J=7.8 Hz).

53-4

Preparation of N-(2,6-dibromo-4-(perfluorobutan-2-yl)phenyl)-2-fluoro-3-nitrobenzamide (Compound No. 11-56)

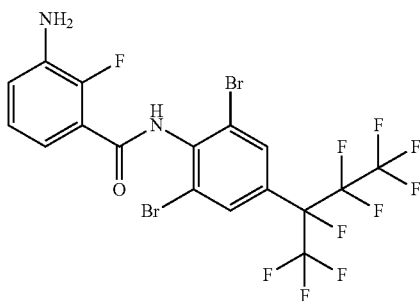


To 108 ml of DMSO were added 5.44 g (8.34 mmol) of 2-chloro-N-(2,6-dibromo-4-(perfluorobutan-2-yl)phenyl)-3-nitrobenzamide and 4.90 g (84.3 mmol) of potassium fluoride (spray-dried product), followed by stirring at 145° C. for 2 hours. The reaction solution was poured into ice-water to precipitate crystals, and the obtained crystals were filtered and washed with hexane. The obtained crystals were purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=5:1) to prepare 2.42 g (yield 46%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 7.53-7.54 (1H, m), 7.89 (2H, s), 8.17 (1H, d, J=12.2 Hz), 8.29-8.30 (1H, m), 8.48-8.49 (1H, m).

53-5

Preparation of 3-amino-N-(2,6-dibromo-4-(perfluorobutan-2-yl)phenyl)-2-fluorobenzamide (Compound No. 12-30)



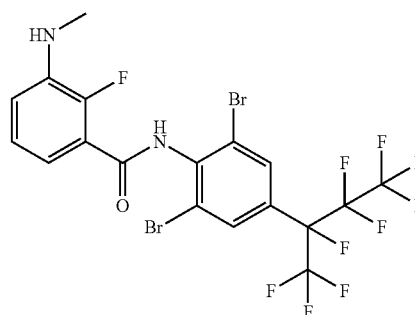
According to the method of 1-3 of Example 1, a target compound was prepared from N-(2,6-dibromo-4-(perfluorobutan-2-yl)phenyl)-2-fluoro-3-nitrobenzamide.

448

¹H-NMR (CDCl₃, ppm) δ 3.92 (2H, broad-s), 6.99-7.04 (1H, m), 7.11-7.12 (1H, m), 7.48-7.52 (1H, m), 7.86 (2H, s), 8.22 (1H, d, J=14.1 Hz).

53-6

Preparation of N-(2,6-dibromo-4-(perfluorobutan-2-yl)phenyl)-2-fluoro-3-(methylamino)benzamide (Compound No. 13-32)

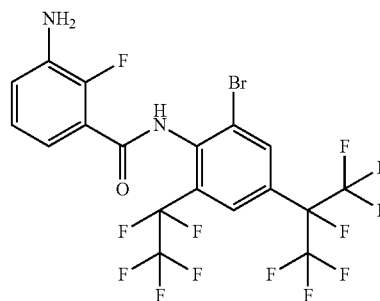


According to the method of Example 51, a target compound was prepared from 3-amino-N-(2,6-dibromo-4-(perfluorobutan-2-yl)phenyl)-2-fluorobenzamide.

¹H-NMR (CDCl₃, ppm) δ 2.95 (3H, s), 4.14 (1H, broad-s), 6.91-6.92 (1H, m), 7.17-7.21 (1H, m), 7.39-7.43 (1H, m), 7.85 (2H, s), 8.21 (1H, d, J=14.1 Hz).

Example 54

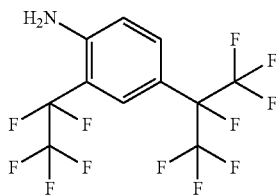
Preparation of 3-amino-N-(2-bromo-6-(perfluoroethyl)-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide (Compound No. 12-46)



449

54-1

Preparation of 2-(perfluoroethyl)-4-(perfluoropropan-2-yl)aniline (Compound No. 21-4)

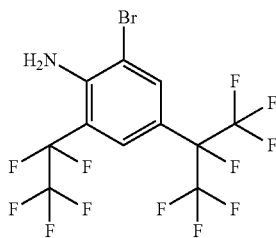


According to the method of 22-1 of Example 22, a target compound was prepared from 4-(perfluoropropan-2-yl)aniline obtained in Example 52-1 and 1,1,2,2,2-pentafluoroethyl iodide.

$^1\text{H-NMR}$ (CDCl_3 , ppm) δ 4.56 (2H, broad-s), 6.79 (1H, d, $J=8.8$ Hz), 7.47 (1H, d, $J=8.8$ Hz), 7.53 (1H, s).

54-2

Preparation of 2-bromo-6-(perfluoroethyl)-4-(perfluoropropan-2-yl)aniline (Compound No. 21-19)



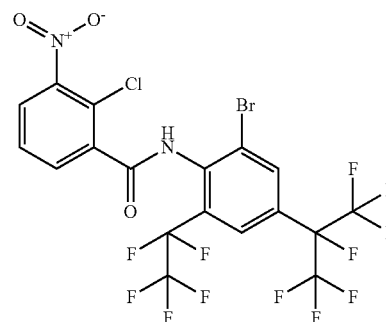
According to the method of 22-2 of Example 22, a target compound was prepared from 2-(perfluoroethyl)-4-(perfluoropropan-2-yl)aniline.

450

$^1\text{H-NMR}$ (CDCl_3 , ppm) δ 5.14 (2H, broad-s), 7.58 (1H, s), 7.81 (1H, s).

54-3

Preparation of N-(2-bromo-6-(perfluoroethyl)-4-(perfluoropropan-2-yl)phenyl)-2-chloro-3-nitrobenzamide (Compound No. 11-48)

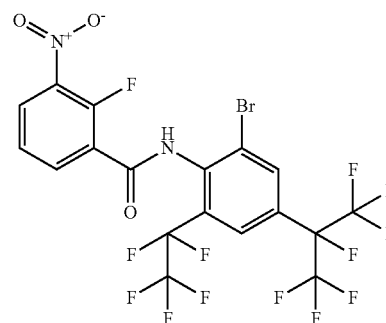


According to the method of 53-3 of Example 53, a target compound was prepared from 2-bromo-6-(perfluoroethyl)-4-(perfluoropropan-2-yl)aniline.

$^1\text{H-NMR}$ (CDCl_3 , ppm) δ 7.56-7.61 (1H, m), 7.73 (1H, s), 7.88 (1H, d, $J=1.5$ Hz), 7.92-7.98 (2H, m), 8.21 (1H, s).

54-4

Preparation of N-(2-bromo-6-(perfluoroethyl)-4-(perfluoropropan-2-yl)phenyl)-2-fluoro-3-nitrobenzamide (Compound No. 11-75)



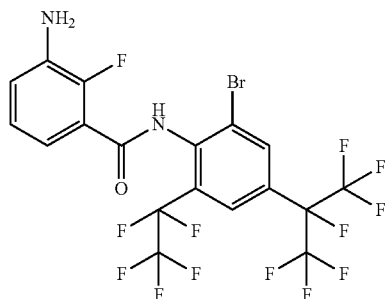
According to the method of 1-2 of Example 1, a target compound was prepared from N-(2-bromo-6-(perfluoroethyl)-4-(perfluoropropan-2-yl)phenyl)-2-chloro-3-nitrobenzamide.

APCI-MS m/z ($M+1$):626

451

54-5

Preparation of 3-amino-N-(2-bromo-6-(perfluoroethyl)-4-(perfluoropropan-2-yl)phenyl)-2-fluorobenzamide (Compound No. 12-46)

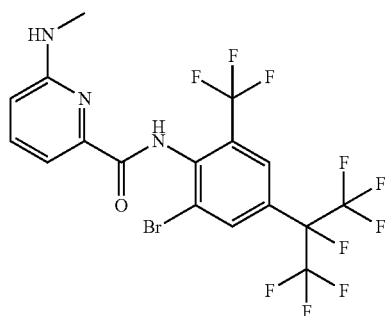


According to the method of 1-3 of Example 1, a target compound was prepared from N-(2-bromo-6-(perfluoroethyl)-4-(perfluoropropan-2-yl)phenyl)-2-fluoro-3-nitrobenzamide.

¹H-NMR (CDCl₃, ppm) δ 3.92 (2H, broad-s), 6.99-7.04 (1H, m), 7.05-7.18 (1H, m), 7.46-7.51 (1H, m), 7.85 (1H, broad-s), 8.17 (1H, broad-s), 8.34 (1H, d, J=15.1 Hz).

Example 55

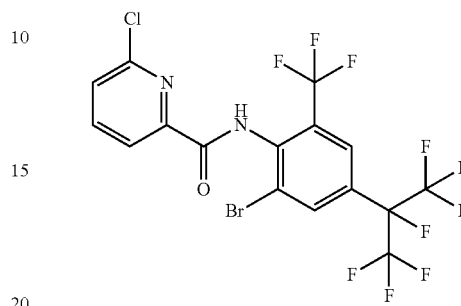
Preparation of N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-6-(methylamino)picolinamide (Compound No. 15-68)



452

55-1

Preparation of N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-6-chloropicolinamide (Compound No. 14-6)

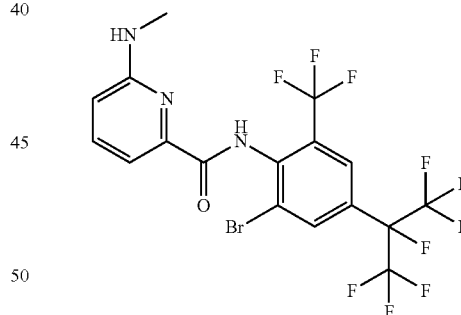


According to the method of 22-3 of Example 22, a target compound was prepared from 2-chloropyridine-6-carboxylic acid chloride prepared from thionyl chloride, and 2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)aniline obtained in 22-2 of Example 22.

¹H-NMR (CDCl₃, ppm) δ 7.59 (1H, d, J=7.3 Hz), 7.90-7.93 (2H, m), 8.14 (1H, s), 8.20-8.24 (1H, m), 9.60 (1H, s).

55-2

Preparation of N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-6-(methylamino)picolinamide (Compound No. 15-68)



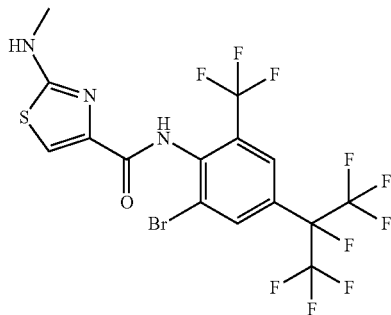
To a solution of 0.100 g (0.180 mmol) of N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-6-chloropicolinamide in 5 ml of 1,4-dioxane were added 0.00600 g (0.0360 mmol) of copper sulfate and 0.140 g (1.80 mmol) of a 40% aqueous methylamine solution, followed by stirring at an oil bath temperature 80° C. for 3 hours under an enclosed condition. The reaction liquid was returned to room temperature and opened, and water and ethyl acetate were added thereto. The organic layer was washed with water, saturated brine, and dried over anhydrous magnesium sulfate. The solvent was evaporated under reduced pressure and the obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=2:1) to prepare 0.0700 g (yield 69%) of a target compound.

453

¹H-NMR (CDCl₃, ppm) δ 2.64 (3H, s), 3.79 (1H, broad-s), 7.56-7.60 (1H, m), 7.87-7.93 (2H, m), 8.14-8.15 (1H, m), 8.20-8.23 (1H, m), 9.60 (1H, s).

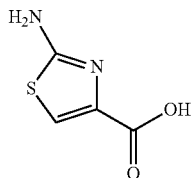
Example 56

Preparation of N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-2-(methylamino)thiazole-4-carboxamide (Compound No. 17-42)



56-1

Preparation of 2-aminothiazole-4-carboxylic acid



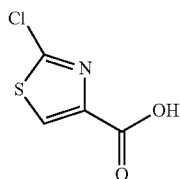
To 40 ml of an aqueous solution of 4.00 g (23.2 mmol) of ethyl 2-aminothiazole-4-carboxylate was added 1.86 g (46.5 mmol) of sodium hydroxide, followed by stirring at room temperature for 5 hours. To the reaction liquid was added concentrated hydrochloric acid to adjust to pH 1, and the precipitated crystals were collected by filtration to prepare 2.84 g (yield 85%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 7.18 (2H, broad-s), 7.38 (1H, s).

The proton presumed to be indicative of carboxylic acid was not detected.

56-2

Preparation of 2-chlorothiazole-4-carboxylic acid



To a solution of 2.84 g (19.7 mmol) of 2-aminothiazole-4-carboxylic acid in 30 ml of 1,4-dioxane was added 50 ml of

454

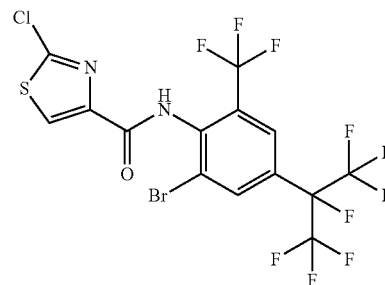
concentrated hydrochloric acid, followed by cooling to 0° C., and 10 ml of an aqueous solution of 2.04 g (29.6 mmol) of sodium nitrite was charged dropwise thereto at 0° C. to 5° C. The reaction liquid was stirred at 0° C. for 2 hours, and then 2.93 g (29.6 mmol) of copper chloride was charged in separate portions thereto. The reaction liquid was returned to room temperature, followed by stirring for 8 hours. To the reaction liquid were added water and ethyl acetate, followed by extraction with ethyl acetate four times. The organic layer was washed with saturated brine, and then dried over anhydrous magnesium sulfate. The solvent was evaporated under reduced pressure to prepare 1.77 g (yield 55%) of a target compound.

¹H-NMR (DMSO-d₆, ppm) δ 8.41 (1H, s).

The proton presumed to be indicative of carboxylic acid was not detected.

56-3

Preparation of N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-2-chlorothiazole-4-carboxamide (Compound No. 16-6)

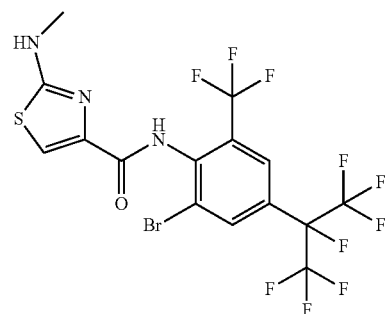


According to the method of 53-3 of Example 53, a target compound was prepared from 2-chlorothiazole-4-carboxylic acid, 2-chlorothiazole-4-carbonylchloride prepared from thionyl chloride, and 2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)aniline obtained in 22-2 of Example 22.

¹H-NMR (CDCl₃, ppm) δ 7.91 (1H, s), 8.13 (1H, s), 8.19 (1H, s), 8.82 (1H, s).

56-4

Preparation of N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-2-(methylamino)thiazole-4-carboxamide (Compound No. 17-42)



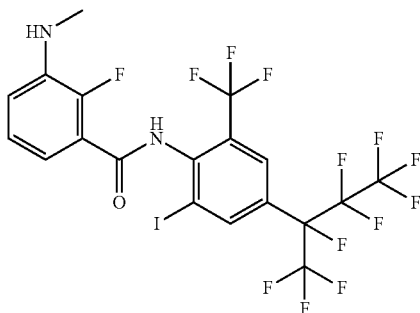
455

According to the method of 55-2 of Example 55, a target compound was prepared from N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-2-chlorothiazole-4-carboxamide.

¹H-NMR (CDCl₃, ppm) δ 3.03 (3H, s), 5.11-5.12 (1H, m), 7.50 (1H, s), 7.88 (1H, s), 8.11 (1H, s), 8.99 (1H, s).

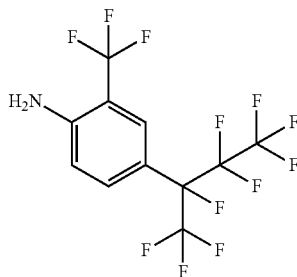
Example 57

Preparation of 2-fluoro-N-(2-iodo-4-(perfluorobutan-2-yl)-6-(trifluoromethyl)phenyl)-3-(methylamino)benzamide (Compound No. 13-44)



57-1

Preparation of 4-(perfluorobutan-2-yl)-2-(trifluoromethyl)aniline (Compound No. 21-3)



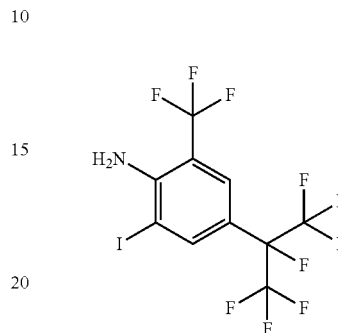
According to the method of 22-1 of Example 22, a target compound was prepared from 2-(trifluoromethyl)aniline and nonafluoro-s-butyliodide under the light-shielding condition.

456

¹H-NMR (CDCl₃, ppm) δ 4.49 (2H, broad-s), 6.81 (1H, d, J=8.8 Hz), 7.47 (1H, d, J=8.8 Hz), 7.61 (1H, s).

57-2

Preparation of 2-iodo-4-(perfluorobutan-2-yl)-6-(trifluoromethyl)aniline (Compound No. 21-14)

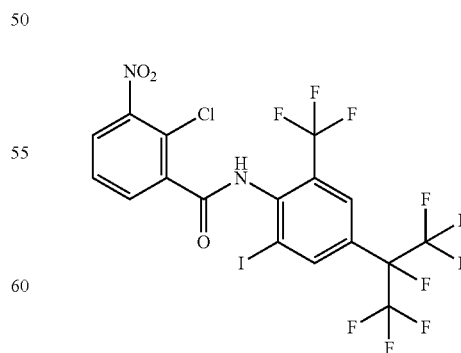


To 100 mL of ethanol was added 17.0 g (44.8 mmol) of 4-(perfluorobutan-2-yl)-2-(trifluoromethyl)aniline, and 5.28 g (53.8 mmol) of concentrated sulfuric acid and 12.6 g (55.8 mmol) of N-iodosuccinimide were added thereto under ice-cooling, followed by stirring at room temperature for 1 hour and 30 minutes and at 40° C. for 4 hours. The reaction solution was neutralized by adding a 4 N aqueous sodium hydroxide solution to the reaction solution, then ethyl acetate was added thereto, and the organic phase was extracted. The organic phase was washed with saturated brine and dried over anhydrous magnesium sulfate, and then the solvent was evaporated under reduced pressure. The obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=10:1) to prepare 14.6 g (yield 65%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 5.04 (2H, broad-s), 7.62 (1H, s), 7.97 (1H, s).

57-3

Preparation of 2-chloro-N-(2-iodo-4-(perfluorobutan-2-yl)-6-(trifluoromethyl)phenyl)-3-nitrobenzamide (Compound No. 11-43)



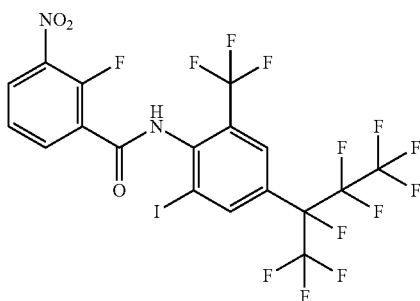
According to the method of 53-3 of Example 53, a target compound was prepared from 2-iodo-4-(perfluorobutan-2-yl)-6-(trifluoromethyl)aniline.

457

¹H-NMR (CDCl₃, ppm) δ 7.60-7.61 (1H, m), 7.77 (1H, s), 7.89-7.96 (2H, m), 8.03-8.04 (1H, m), 8.38 (1H, s).

57-4

Preparation of 2-fluoro-N-(2-iodo-4-(perfluorobutan-2-yl)-6-(trifluoromethyl)phenyl)-3-nitrobenzamide (Compound No. 11-70)

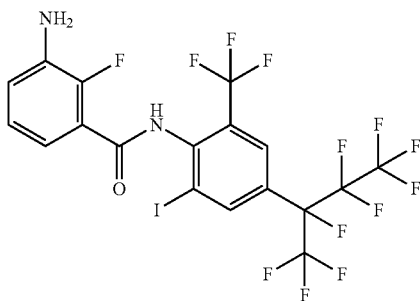


According to the method of 1-2 of Example 1, a target compound was prepared from 2-chloro-N-(2-iodo-4-(perfluorobutan-2-yl)-6-(trifluoromethyl)phenyl)-3-nitrobenzamide.

¹H-NMR (CDCl₃, ppm) δ 7.53-7.54 (1H, m), 7.95 (1H, s), 8.24-8.32 (2H, m), 8.36 (1H, s), 8.44-8.48 (1H, m).

57-5

Preparation of 3-amino-2-fluoro-N-(2-iodo-4-(perfluorobutan-2-yl)-6-(trifluoromethyl)phenyl)benzamide (Compound No. 12-41)



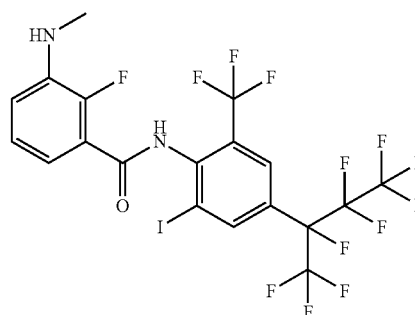
According to the method of 1-3 of Example 1, a target compound was prepared from 2-fluoro-N-(2-iodo-4-(perfluorobutan-2-yl)-6-(trifluoromethyl)phenyl)-3-nitrobenzamide.

458

¹H-NMR (CDCl₃, ppm) δ 3.93 (2H, broad-s), 7.02-7.03 (1H, m), 7.11-7.13 (1H, m), 7.47-7.51 (1H, m), 7.92 (1H, s), 8.31-8.34 (2H, m).

57-6

Preparation of 2-fluoro-N-(2-iodo-4-(perfluorobutan-2-yl)-6-(trifluoromethyl)phenyl)-3-(methylamino)benzamide (Compound No. 13-44)

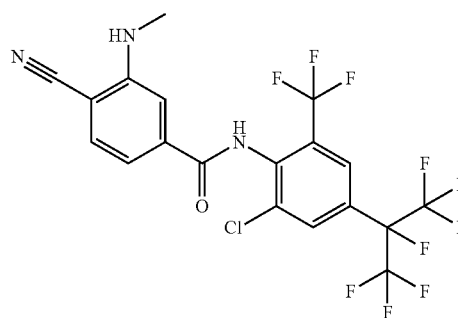


According to the method of Example 51, a target compound was prepared from 3-amino-2-fluoro-N-(2-iodo-4-(perfluorobutan-2-yl)-6-(trifluoromethyl)phenyl)benzamide.

¹H-NMR (CDCl₃, ppm) δ 2.95-2.96 (3H, m), 4.15 (1H, broad-s), 6.91-6.93 (1H, m), 7.19-7.20 (1H, m), 7.38-7.42 (1H, m), 7.92 (1H, s), 8.32 (1H, d, J=14.1 Hz), 8.34 (1H, s).

Example 58

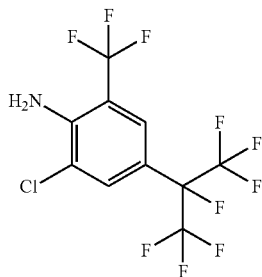
Preparation of N-(2-chloro-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-4-cyano-3-(methylamino)benzamide (Compound No. 13-85)



459

58-1

Preparation of 2-chloro-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)aniline (Compound No. 21-8)

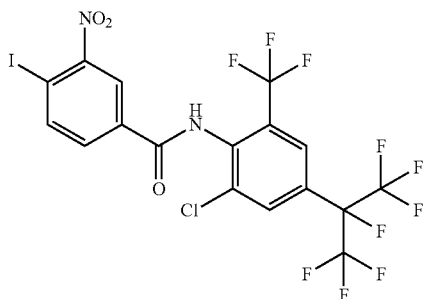


According to the method of 22-2 of Example 22, a target compound was prepared from 4-(perfluoropropan-2-yl)-2-(trifluoromethyl)aniline obtained in 22-1 of Example 22 and N-chlorosuccinimide.

¹H-NMR (CDCl₃, ppm) δ 4.97 (2H, broad-s), 7.57 (1H, s), 7.64 (1H, s).

58-2

Preparation of N-(2-chloro-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-4-iodo-3-nitrobenzamide (Compound No. 11-100)



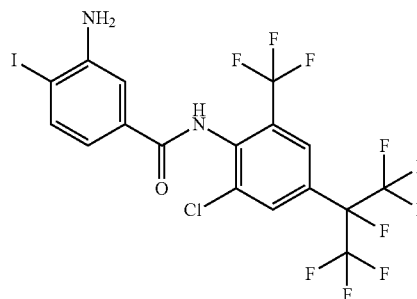
According to the method of 22-3 of Example 22, a target compound was prepared from 4-iodo-3-nitrobenzoic acid, 4-iodo-3-nitrobenzoyl chloride prepared from thionyl chloride, and 2-chloro-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)aniline.

460

¹H-NMR (CDCl₃, ppm) δ 7.52-7.81 (2H, m), 7.89 (1H, s), 8.00 (1H, s), 8.25 (1H, d, J=8.3 Hz), 8.38 (1H, d, J=1.9 Hz).

58-3

Preparation of 3-amino-N-(2-chloro-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-4-iodobenzamide (Compound No. 12-63)

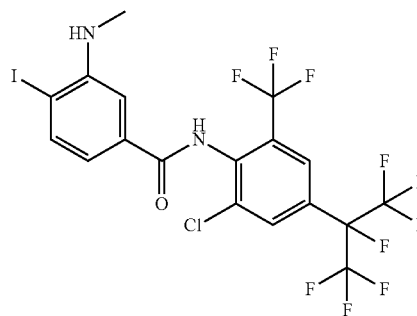


According to the method of 1-3 of Example 1, a target compound was prepared from N-(2-chloro-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-4-iodo-3-nitrobenzamide.

¹H-NMR (CDCl₃, ppm) δ 4.35 (2H, s), 6.92 (1H, dd, J=1.9, 8.3 Hz), 7.29 (1H, d, J=1.9 Hz), 7.60 (1H, s), 7.79 (1H, d, J=8.3 Hz), 7.86 (1H, s), 7.97 (1H, s).

58-4

Preparation of N-(2-chloro-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-4-iodo-3-(methylamino)benzamide (Compound No. 13-68)



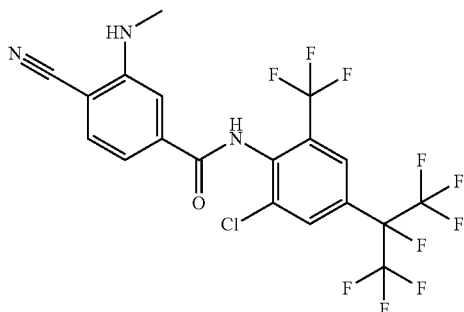
According to the method of Example 51, a target compound was prepared from 3-amino-N-(2-chloro-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-4-iodobenzamide.

461

¹H-NMR (CDCl₃, ppm) δ 2.97 (3H, s), 4.46 (1H, broad-s), 6.89 (1H, dd, J=1.9, 8.3 Hz), 7.07 (1H, d, J=1.9 Hz), 7.65 (1H, s), 7.80 (1H, d, J=8.3 Hz), 7.86 (1H, s), 7.97 (1H, s).

58-5

Preparation of N-(2-chloro-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-4-cyano-3-(methylamino)benzamide (Compound No. 13-85)

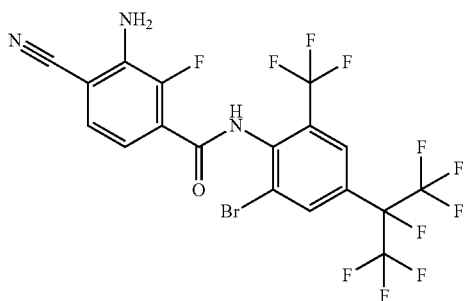


To 10 mL of DMF were added 0.350 g (0.560 mmol) of N-(2-chloro-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-4-iodo-3-(methylamino)benzamide and 0.200 g (2.25 mmol) of copper (I) cyanide, followed by stirring at 140° C. for 1 hour and 30 minutes. A saturated aqueous sodium thiosulfate solution was poured into the reaction solution to quench the reaction, and the organic layer was collected by separation with ethyl acetate and washed with saturated brine. The organic layer was dried over anhydrous magnesium sulfate, and then the solvent was evaporated under reduced pressure. The obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=5:1→3:1) to prepare 0.250 g (yield 86%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 3.01 (1/2*3 H, s), 3.03 (1/2*3 H, s), 4.89 (1/2*1H, s), 4.90 (1/2*1H, s), 7.80 (1H, dd, J=1.5, 8.3 Hz), 7.21-7.22 (1H, m), 7.54 (1H, d, J=8.3 Hz), 7.67 (1H, s), 7.88 (1H, s), 7.99 (1H, s).

Example 59

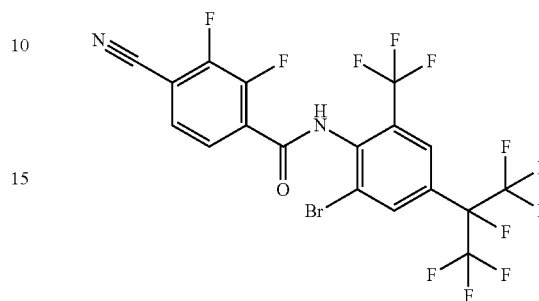
Preparation of 3-amino-N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-4-cyano-2-fluorobenzamide (Compound No. 12-94)



462

59-1

Preparation of N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-4-cyano-2,3-difluorobenzamide

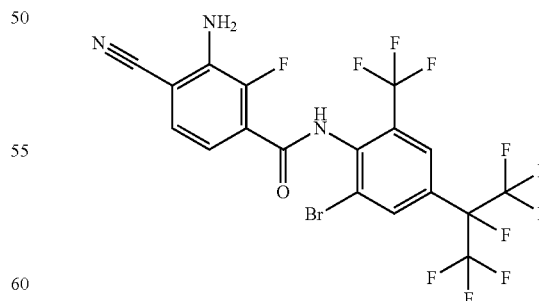


To a solution of 0.840 g (4.59 mmol) of 4-cyano-2,3-difluorobenzoic acid in 10 ml of dichloromethane were added one drop of DMF and 0.470 ml (5.51 mmol) of oxalyl chloride, followed by stirring at room temperature for 1 hour. The solvent was evaporated under reduced pressure and the obtained 4-cyano-2,3-difluorobenzoyl chloride was added to a solution of 1.56 g (3.83 mmol) of 2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)aniline obtained in 22-2 of Example 22 in 5 ml of DMI, followed by stirring at 130° C. for 5 hours. To the reaction liquid were added water and ethyl acetate, and the organic layer was washed with a saturated aqueous sodium hydrogen carbonate solution and saturated brine, and then dried over anhydrous magnesium sulfate. The solvent was evaporated under reduced pressure and the obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=1:0→10:1) to prepare 0.58 g (yield 27%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 7.52-7.62 (1H, m), 7.92-7.94 (1H, m), 8.02-8.06 (1H, m), 8.13-8.16 (2H, m).

59-2

Preparation of 3-amino-N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-4-cyano-2-fluorobenzamide (Compound No. 12-94)



To a solution of N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-4-cyano-2,3-difluorobenzamide in 5 ml of DMSO was added 49.0 mg of ammonium carbonate, followed by stirring at 100° C. for 5 hours. To the reaction liquid were added water and ethyl acetate, and the organic

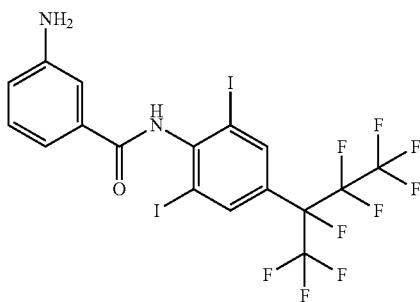
463

layer was washed with water, and then dried over anhydrous magnesium sulfate. The solvent was evaporated under reduced pressure and the obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=8:1→4:1) to prepare 0.30 g (yield 51%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 4.71 (2H, broad-s), 7.35-7.39 (1H, m), 7.40-7.44 (1H, m), 7.92 (1H, s), 8.12-8.15 (2H, m).

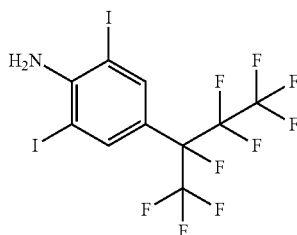
Example 60

Preparation of 3-amino-N-(2,6-diiodo-4-(perfluorobutan-2-yl)phenyl)benzamide (Compound No. 12-3)



60-1

Preparation of
2,6-diiodo-4-(perfluorobutan-2-yl)aniline



According to the method of 52-2 of Example 52, a target compound was prepared from 4-(perfluorobutan-2-yl)aniline obtained in 53-1 of Example 53.

¹H-NMR (CDCl₃, ppm) δ 4.95 (2H, broad-s), 7.78 (2H, s).

464

60-2

Preparation of N-(2,6-diiodo-4-(perfluorobutan-2-yl)phenyl)-3-nitrobenzamide (Compound No. 11-4)

10

15

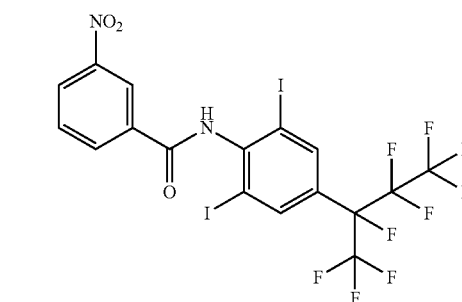
20

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35

40



According to the method of 53-3 of Example 53, a target compound was prepared from 2,6-diiodo-4-(perfluorobutan-2-yl)aniline and 3-nitrobenzoyl chloride.

¹H-NMR (CDCl₃, ppm) δ 7.74 (1H, t, J=8.0 Hz), 8.11 (2H, s), 8.42 (1H, d, J=7.6 Hz), 8.46 (1H, d, J=8.4 Hz), 8.90 (1H, d, J=12.4 Hz), 8.92 (1H, s).

60-3

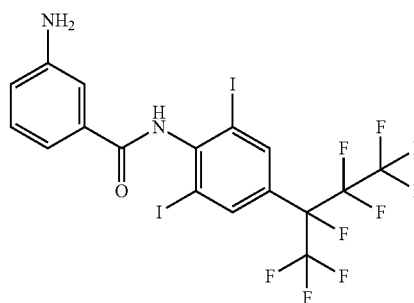
45

Preparation of 3-amino-N-(2,6-diiodo-4-(perfluorobutan-2-yl)phenyl)benzamide (Compound No. 12-3)

50

55

60



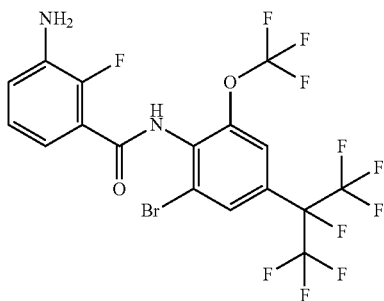
According to the method of 1-3 of Example 1, a target compound was prepared from N-(2,6-diiodo-4-(perfluorobutan-2-yl)phenyl)-3-nitrobenzamide.

465

¹H-NMR (CDCl₃, ppm) δ 5.39 (2H, broad-s), 6.89-6.93 (1H, m), 7.29-7.31 (3H, m), 7.68 (1H, s), 8.08 (2H, s).

Example 61

Preparation of 3-amino-N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethoxy)phenyl)-2-fluorobenzamide (Compound No. 12-33)

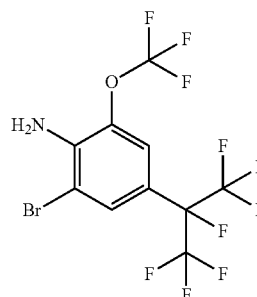


466

¹H-NMR (CDCl₃, ppm) δ 4.19 (2H, broad-s), 6.86 (1H, d, J=8.8 Hz), 7.30 (1H, d, J=8.8 Hz), 7.36 (1H, s).

61-2

Preparation of 2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethoxy)aniline



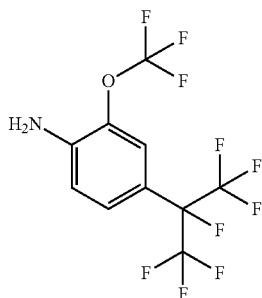
According to the method of 22-2 of Example 22, a target compound was prepared from 4-(perfluoropropan-2-yl)-2-(trifluoromethoxy)aniline.

¹H-NMR (CDCl₃, ppm) δ 4.65 (2H, broad-s), 7.33 (1H, s), 7.71 (1H, s).

61-3

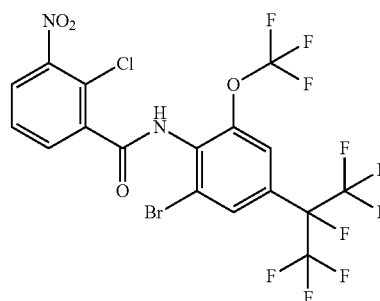
61-1

Preparation of 4-(perfluoropropan-2-yl)-2-(trifluoromethoxy)aniline



According to the method of 22-1 of Example 22, a target compound was prepared from 2-trifluoromethoxyaniline.

Preparation of N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethoxy)phenyl)-2-chloro-3-nitrobenzamide (Compound No. 11-33)



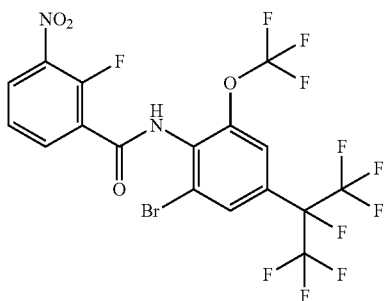
According to the method of 22-3 of Example 22, a target compound was prepared from 2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethoxy)aniline

467

¹H-NMR (CDCl₃, ppm) δ 7.49-7.61 (3H, m), 7.80-7.96 (3H, m).

61-4

Preparation of N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethoxy)phenyl)-2-fluoro-3-nitrobenzamide (Compound No. 11-60)

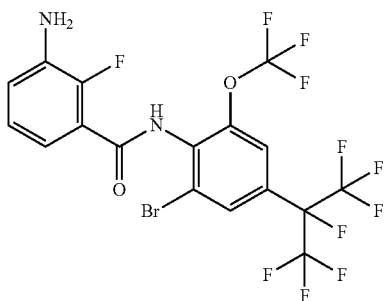


According to the method of 1-2 of Example 1, a target compound was prepared from N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethoxy)phenyl)-2-chloro-3-nitrobenzamide.

¹H-NMR (CDCl₃, ppm) δ 7.53 (1H, t, J=7.8 Hz), 7.60 (1H, broad-s), 7.89 (1H, d, J=1.5 Hz), 8.07 (1H, broad-d, J=12.7 Hz), 8.29-8.30 (1H, m), 8.43-8.47 (1H, m).

61-5

Preparation of 3-amino-N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethoxy)phenyl)-2-fluorobenzamide (Compound No. 12-33)



According to the method of 1-3 of Example 1, a target compound was prepared from N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethoxy)phenyl)-2-fluoro-3-nitrobenzamide.

468

¹H-NMR (CDCl₃, ppm) δ 3.92 (2H, broad-s), 6.99-7.04 (1H, m), 7.11 (1H, t, J=7.8 Hz), 7.45-7.49 (1H, m), 7.57 (1H, broad-s), 7.87 (1H, d, J=2.0 Hz), 8.14 (1H, d, J=14.2 Hz).

5

Example 62

Preparation of 3-amino-N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-4-fluorobenzamide (Compound No. 12-53)

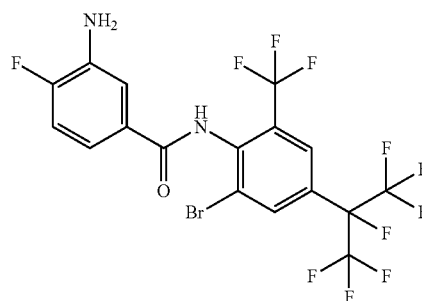
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62-1

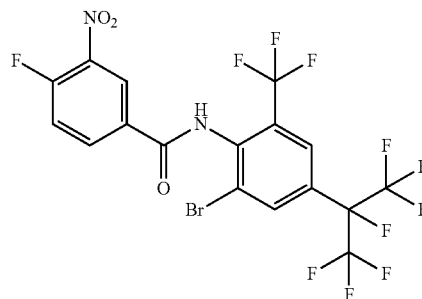
Preparation of N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-4-fluoro-3-nitrobenzamide (Compound No. 11-84)

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According to the method of 22-3 of Example 22, target compound was prepared from 4-fluoro-3-nitrobenzoic acid, 4-fluoro-3-nitrobenzoyl chloride prepared from thionyl chloride, and 2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)aniline obtained in 22-2 of Example 22.

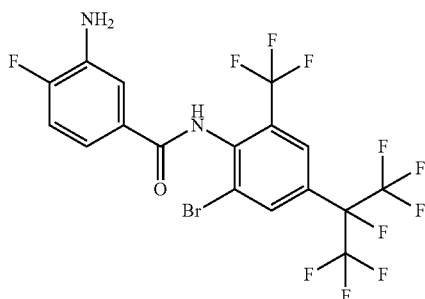
65

469

¹H-NMR (CDCl₃, ppm) δ 7.47-7.50 (1H, m), 7.92 (2H, d, J=5.9 Hz), 8.16 (1H, s), 8.23-8.28 (1H, m), 8.65-8.67 (1H, m).

62-2

Preparation of 3-amino-N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-4-fluorobenzamide (Compound No. 12-53)

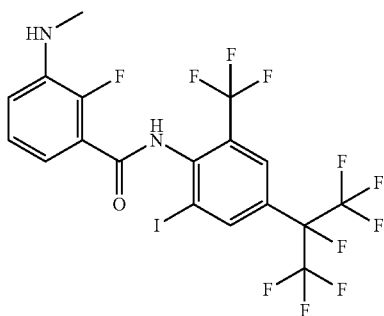


According to the method of 1-3 of Example 1, a target compound was prepared from N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-4-fluoro-3-nitrobenzamide.

APCI-MS m/z (M+1):546

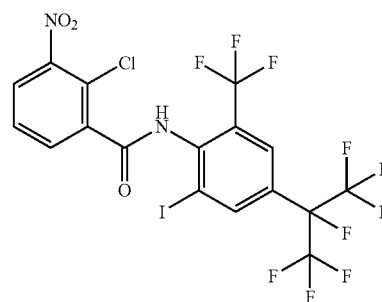
Example 63

Preparation of 2-fluoro-N-(2-iodo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-3-(methylamino)benzamide (Compound No. 13-41)

**470**

63-1

Preparation of 2-chloro-N-(2-iodo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-3-nitrobenzamide (Compound No. 11-39)

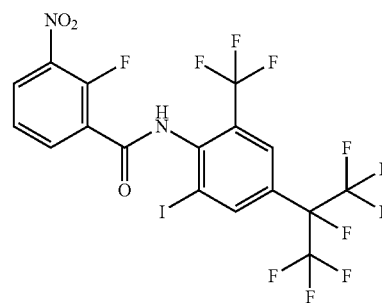


According to the method of 53-3 of Example 53, a target compound was prepared from 2-iodo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)aniline obtained in 45-1 of Example 45 and 2-chloro-3-nitrobenzoyl chloride.

¹H-NMR (CDCl₃, ppm) δ 7.60 (1H, t, J=7.8 Hz), 7.76 (1H, s), 7.94 (1H, dd, J=1.5, 7.8 Hz), 7.97 (1H, s), 8.03 (1H, dd, J=1.5, 7.8 Hz), 8.39 (1H, s).

63-2

Preparation of 2-fluoro-N-(2-iodo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-3-nitrobenzamide (Compound No. 11-66)



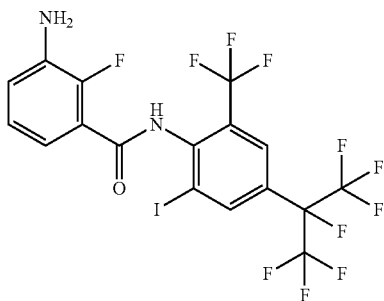
According to the method of 1-2 of Example 1, a target compound was prepared from 2-chloro-N-(2-iodo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-3-nitrobenzamide.

471

¹H-NMR (CDCl₃, ppm) δ 7.51-7.55 (1H, m), 7.97 (1H, s), 8.23 (1H, d, J=12.2 Hz), 8.28-8.32 (1H, m), 8.37 (1H, s), 8.44-8.48 (1H, m).

63-3

Preparation of 3-amino-2-fluoro-N-(2-iodo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)benzamide (Compound No. 12-38)

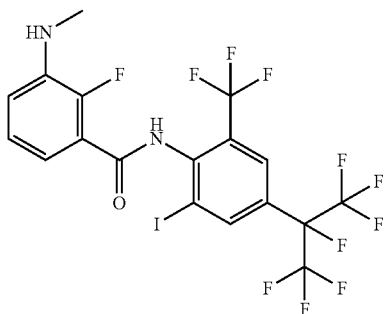


According to the method of 1-3 of Example 1, a target compound was prepared from 2-fluoro-N-(2-iodo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-3-nitrobenzamide.

¹H-NMR (CDCl₃, ppm) δ 3.92 (2H, broad-s), 7.02-7.04 (1H, m), 7.11 (1H, t, J=7.8 Hz), 7.47-7.52 (1H, m), 7.94 (1H, s), 8.30-8.35 (2H, m).

63-4

Preparation of 2-fluoro-N-(2-iodo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-3-(methylamino)benzamide (Compound No. 13-41)



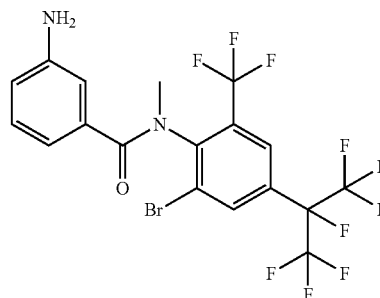
According to the method of Example 51, a target compound was prepared from 3-amino-2-fluoro-N-(2-iodo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)benzamide.

472

¹H-NMR (CDCl₃, ppm) δ 2.95 (3H, s), 4.15 (1H, broad-s), 6.90 (1H, t, J=8.2 Hz), 7.19 (1H, t, J=7.8 Hz), 7.40 (1H, t, J=7.8 Hz), 7.92 (1H, s), 8.30 (1H, s), 8.34 (1H, s).

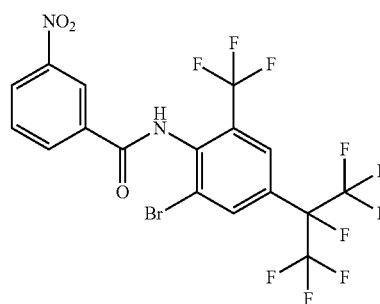
Example 64

Preparation of 3-amino-N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-N-methylbenzamide (Compound No. 12-107)



64-1

Preparation of N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-3-nitrobenzamide (Compound No. 11-11)



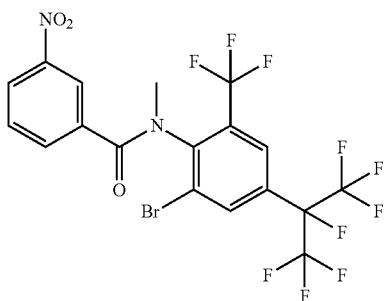
According to the method of 53-3 of Example 53, a target compound was prepared from 2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)aniline obtained in 22-2 of Example 22 and 3-nitrobenzoyl chloride.

473

¹H-NMR (CDCl₃, ppm) δ 7.75-7.79 (2H, m), 7.94 (1H, s), 8.17 (1H, d, J=1.0 Hz), 8.28 (1H, dd, J=1.5, 7.8 Hz), 8.48-8.51 (1H, m), 8.76-8.77 (1H, m).

64-2

Preparation of N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-N-methyl-3-nitrobenzamide (Compound No. 11-136)

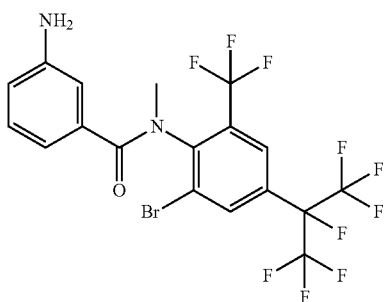


To a solution of 1.50 g (2.69 mmol) of N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-3-nitrobenzamide in 20 ml of DMF was added 0.160 g (4.04 mmol) of sodium hydride (60% in oil), followed by stirring at room temperature for 10 minutes, and then 0.840 ml (13.5 mmol) of methyl iodide was added thereto, followed by stirring at the same temperature for 2 hours. To the reaction liquid were added water and ethyl acetate, and the organic layer was washed with water and saturated brine, and then dried over anhydrous magnesium sulfate. The solvent was evaporated under reduced pressure and the obtained residue was purified by NH silica gel column chromatography (developing solvent; hexane:ethyl acetate=20:1) to prepare 1.42 g (yield 93%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 3.28 (1/2*3 H, s), 3.44 (1/2*3 H, s), 7.41 (1/2*1H, t, J=7.8 Hz), 7.71-7.76 (2/2*1H, m), 7.84 (1/2*1H, s), 7.93-7.95 (1/2*1H, m), 7.98 (1/2*1H, s), 8.07-8.09 (2/2*1H, m), 8.14-8.16 (1/2*1H, m), 8.19 (1/2*1H, s), 8.39-8.41 (1/2*1H, m), 8.45-8.46 (1/2*1H, m).

64-3

Preparation of 3-amino-N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-N-methylbenzamide (Compound No. 12-107)



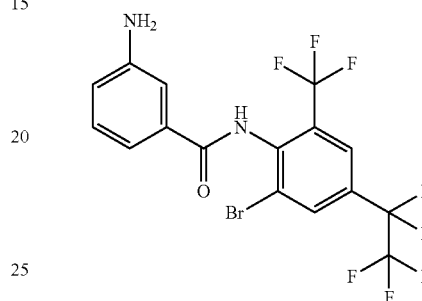
According to the method of 1-3 of Example 1, a target compound was prepared from N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-N-methyl-3-nitrobenzamide.

474

¹H-NMR (CDCl₃, ppm) δ 3.24 (3/4*3 H, s), 3.37 (1/4*3 H, s), 3.80 (2H, broad-s), 6.47 (1/4*1H, d, J=7.8 Hz), 6.54-6.57 (1/4*1H, m), 6.78-6.84 (5/4*1H, m), 6.86 (3/4*1H, t, J=2.0 Hz), 6.96 (3/4*1H, d, J=7.8 Hz), 7.23-7.27 (3/4*1H, m), 7.79 (1/4*1H, s), 7.94 (3/4*1H, s), 8.00 (1/4*1H, s), 8.15 (3/4*1H, s).

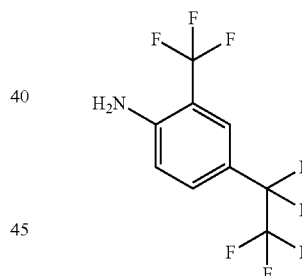
Example 65

Preparation of 3-amino-N-(2-bromo-4-(perfluoroethyl)-6-(trifluoromethyl)phenyl)benzamide (Compound No. 12-5)



65-1

Preparation of 4-(perfluoroethyl)-2-(trifluoromethyl)aniline (Compound No. 21-1)



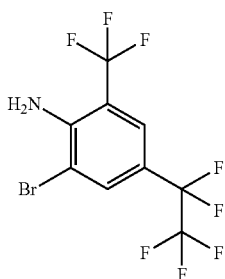
To 40 ml of an aqueous solution of 7.04 g (40.4 mmol) of 85% sodium hydrosulfite and 3.40 g (40.4 mmol) of sodium hydrogen carbonate were added 13.6 g (33.7 mmol) of 2-(trifluoromethyl)aniline and 40 ml of DMF. To this reaction liquid was added 50 ml of a solution of 11.2 g (45.5 mmol) of 1,1,2,2,2-pentafluoroethyl iodide in DMF (DMF was cooled to -30° C., and 1,1,2,2,2-pentafluoroethyl iodide was dissolved therein), and charged to an autoclave, followed by stirring at 110° C. for 9 hours. After leaving to stand at room temperature overnight, water and ethyl acetate were added to the reaction mixture, followed by extraction with ethyl acetate. The organic layer was washed with water, a saturated aqueous sodium hydrogen carbonate solution, and saturated brine. The organic layer was dried over anhydrous sodium sulfate, then the solvent was evaporated under reduced pressure, and the obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=10:1→5:1) to prepare 1.95 g (yield 21%) of a target compound.

475

$^1\text{H-NMR}$ (CDCl_3 , ppm) δ 4.53 (2H, broad-s), 6.81 (1H, d, $J=8.3$ Hz), 7.48 (1H, d, $J=8.3$ Hz), 7.63 (1H, broad-s).

65-2

Preparation of 2-bromo-4-(perfluoroethyl)-6-(trifluoromethyl)aniline (Compound No. 21-6)

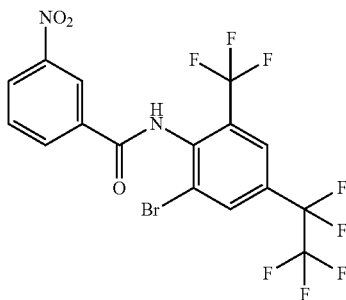


According to the method of 22-2 of Example 22, a target compound was prepared from 4-(perfluoroethyl)-2-(trifluoromethyl)aniline.

$^1\text{H-NMR}$ (CDCl_3 , ppm) δ 5.08 (2H, broad-s), 7.62 (1H, s), 7.80 (1H, s).

65-3

Preparation of N-(2-bromo-4-(perfluoroethyl)-6-(trifluoromethyl)phenyl)-3-nitrobenzamide (Compound No. 11-8)



To a solution of 2.50 g (6.99 mmol) of 2-bromo-4-(perfluoroethyl)-6-(trifluoromethyl)aniline in 20 ml of pyridine was added 2.72 g (14.7 mmol) of 3-nitrobenzoyl chloride, followed by stirring at 100°C . for 12 hours. To the reaction liquid were added water and ethyl acetate, followed by extraction with ethyl acetate. The organic layer was washed with 1 M hydrochloric acid, a saturated aqueous sodium hydrogen carbonate solution, and saturated brine. The organic layer was dried over anhydrous sodium sulfate, and then the solvent was evaporated under reduced pressure. To the obtained residue were added THF and an aqueous sodium hydroxide solution, followed by stirring at room temperature for 8 hours. The reaction liquid was extracted/dried in the manner as described above, and the solvent was evaporated under reduced pressure. The obtained residue was purified by silica gel column chromatography (developing solvent; hexane:ethyl acetate=7:1 \rightarrow 5:1) to prepare 0.202 g (yield 6%) of a target compound.

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$^1\text{H-NMR}$ (CDCl_3 , ppm) δ 7.75 (1H, s), 7.78 (1H, t, $J=7.8$ Hz), 7.94 (1H, s), 8.17 (1H, s), 8.29-8.30 (1H, m), 8.50-8.52 (1H, m), 8.78 (1H, t, $J=2.0$ Hz).

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65-4

Preparation of 3-amino-N-(2-bromo-4-(perfluoroethyl)-6-(trifluoromethyl)phenyl)benzamide (Compound No. 12-5)

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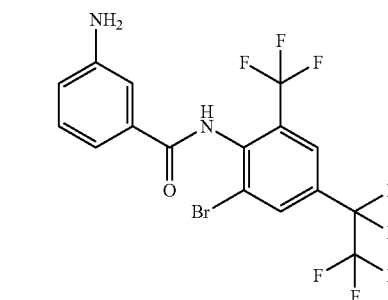
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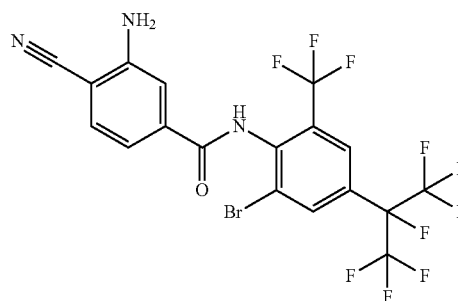


According to the method of 1-3 of Example 1, a target compound was prepared from N-(2-bromo-4-(perfluoroethyl)-6-(trifluoromethyl)phenyl)-3-nitrobenzamide.

$^1\text{H-NMR}$ (CDCl_3 , ppm) δ 3.89 (2H, broad-s), 6.90-6.92 (1H, m), 7.23-7.32 (3H, m), 7.64 (1H, s), 7.90 (1H, s), 8.13 (1H, s).

Example 66

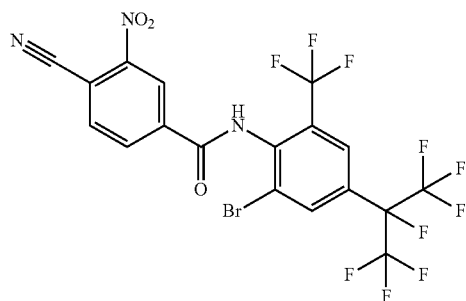
Preparation of 3-amino-N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-4-cyanobenzamide (Compound No. 12-79)



477

66-1

Preparation of N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-4-cyano-3-nitrobenzamide (Compound No. 11-122)

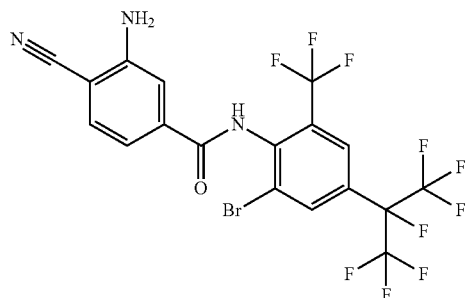


To a solution of 0.500 g (0.870 mmol) of N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-4-fluoro-3-nitrobenzamide obtained in 62-1 of Example 62 in 5 ml of DMF was added 0.0639 g (1.31 mmol) of sodium cyanide, followed by stirring at room temperature for 10 hours. To the reaction liquid were added water and ethyl acetate, followed by extraction with ethyl acetate. The organic layer was washed with a 10% aqueous sodium hydroxide solution and saturated brine. The organic layer was dried over anhydrous sodium sulfate, and then the solvent was evaporated under reduced pressure. The obtained residue was purified by silica gel column chromatography to prepare 0.0500 g (yield 10%) of a target compound.

¹H-NMR (CDCl₃, ppm) δ 7.80 (1H, s), 7.96 (1H, s), 8.12-8.14 (1H, m), 8.18 (1H, s), 8.36 (1H, dd, J=2.0, 8.3 Hz), 8.84 (1H, d, J=1.5 Hz).

66-2

Preparation of 3-amino-N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-4-cyanobenzamide (Compound No. 12-79)



According to the method of 1-3 of Example 1, a target compound was prepared from N-(2-bromo-4-(perfluoropropan-2-yl)-6-(trifluoromethyl)phenyl)-4-cyano-3-nitrobenzamide.

¹H-NMR (CDCl₃, ppm) δ 4.68 (2H, broad-s), 7.18 (1H, dd, J=1.9, 8.3 Hz), 7.29 (1H, s), 7.52-7.55 (1H, m), 7.68 (1H, s), 7.92 (1H, s), 8.14 (1H, d, J=1.5 Hz).

Next, Preparation Examples in which the compound according to the present invention is contained as an active

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ingredient will be shown, but the present invention is not limited thereto. Further, in Preparation Examples, parts represent parts by weight.

Preparation Example 1

20 parts of the compound represented by the Formula (1) according to the present invention, 10 parts of polyoxyethylene styrylphenyl ether, and 70 parts of xylene were mixed uniformly to obtain an emulsion.

Preparation Example 2

10 parts of the compound represented by the Formula (1) according to the present invention, 2 parts of sodium lauryl sulfate, 2 parts of dialkyl sulfosuccinate, 1 part of a β-naphthalene sulfonic acid formalin condensate sodium salt, and 85 parts of diatomaceous earth were stirred and mixed uniformly to obtain wettable powders.

Preparation Example 3

0.3 parts of the compound represented by the Formula (1) according to the present invention and 0.3 parts of white carbon were mixed uniformly, and 99.2 parts of clay and 0.2 parts of DRILESS A (manufactured by Sankyo Agro Co., Ltd.) were added thereto, followed by pulverizing and mixing uniformly, thereby obtaining dustable powders.

Preparation Example 4

3 parts of the compound represented by the Formula (1) according to the present invention, 1.5 parts of a polyoxyethylene/polyoxypropylene condensate, 3 parts of carboxymethyl cellulose, 64.8 parts of clay, and 27.7 parts of talc were pulverized and mixed uniformly, and water was added thereto, followed by kneading, granulating, and drying, thereby obtaining granules.

Preparation Example 5

10 parts of the compound represented by the Formula (1) according to the present invention, 3 parts of a β-naphthalene sulfonic acid formalin condensate sodium salt, 1 part of tristerylphenol, 5 parts of propylene glycol, 0.5 parts of a silicon-based defoaming agent, and 33.5 parts of water were sufficiently stirred and mixed, and then 0.3 parts of xanthan gum and 46.7 parts of water were mixed therewith, followed by stirring and mixing again, thereby obtaining a flowable Formulation.

Preparation Example 6

20 parts of the compound represented by the Formula (1) according to the present invention, 6 parts of a naphthalene sulfonic acid formaldehyde condensate metal salt, 1 part of dialkylsulfosuccinate metal salt, and 73 parts of calcium carbonate were pulverized and mixed uniformly, and water was added thereto, followed by kneading, granulating, and drying, thereby obtaining water dispersible granules.

Furthermore, Test Examples are shown below in order to clarify that the compound represented by the Formula (1)

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according to the present invention has an excellent pesticidal activity, but the present invention is not limited thereto.

Test Example 1

Pesticidal Test Against *Spodoptera litura*

A piece of a cabbage leaf was immersed for 30 seconds in a chemical solution in which a test compound had been diluted at a predetermined concentration, and air-dried, and then put into a 7 cm polyethylene cup having a filter paper laid on the bottom thereof, and 2-stage larvae of *Spodoptera litura* were released. They were left to stand in a thermostatic chamber at 25° C., and the numbers of the living pests and the dead pests were examined after 6 days. The test was carried out with five larvae per group in two replicates.

As a result, the compounds of the following Compound Nos. showed a pesticidal rate of 70% or more at 100 ppm.

1-1, 1-16, 1-21, 1-36, 1-62, 1-63, 1-64, 1-65, 1-82, 1-95, 1-96, 1-99, 1-100, 1-101, 1-103, 1-104, 1-105, 1-115, 1-116, 1-117, 1-118, 1-132, 1-133, 1-134, 1-136, 1-137, 1-138, 1-139, 1-151, 1-152, 1-154, 1-163, 1-164, 1-167, 1-168, 1-169, 1-171, 1-172, 1-173, 1-175, 1-176, 1-177, 1-179, 1-180, 1-183, 1-184, 1-185, 1-187, 1-188, 1-195, 1-196, 1-197, 1-198, 1-199, 1-200, 1-201, 1-202, 1-203, 1-204, 1-205, 1-206, 1-207, 1-208, 1-209, 1-210, 1-211, 1-212, 1-213, 1-214, 1-215, 1-216, 1-217, 1-220, 1-221, 1-222, 1-223, 1-224, 1-225, 1-226, 1-227, 1-231, 1-232, 1-233, 1-234, 1-235, 1-236, 1-237, 1-239, 1-241, 1-242, 2-133, 3-133, 3-163, 3-164, 3-197, 5-1, 5-8, 5-10, 5-11, 5-12, 5-14, 5-15, 5-16, 5-17, 5-18, 5-19, 5-20, 5-21, 5-22, 5-25, 5-27, 5-29, 5-31, 5-32, 5-33, 5-34, 5-35, 5-36, 5-37, 5-71, 5-72, 5-73, 5-76, 5-77, 5-78, 5-79, 5-80, 5-81, 5-82, 5-83, 5-84, 5-86, 5-87, 5-88, 5-89, 5-91, 5-92, 5-93, 5-94, 5-95, 5-96, 5-98, 5-99, 5-100, 5-101, 5-102, 5-103, 5-104, 5-105, 5-107, 5-108, 5-109, 5-111, 5-112, 5-128, 6-1, 6-5, 6-6, 6-7, 6-8, 6-9, 6-10, 6-12, 6-15, 6-16, 6-18, 6-20, 6-43, 6-44, 6-45, 6-49, 6-53, 6-55, 6-59, 6-61, 6-62, 6-64, 6-68, 6-69, 7-1, 7-220, 7-221, 7-222, 7-226, 8-12, 9-12

Test Example 2

Pesticidal Test Against *Plutella xylostella*

A piece of a cabbage leaf was immersed for 30 seconds in a chemical solution in which a test compound had been diluted at a predetermined concentration, and air-dried, and then put into a 7 cm polyethylene cup having a filter paper laid on the bottom thereof, and 3-stage larvae of *Plutella xylostella* were released. They were left to stand in a thermostatic chamber at 25° C., and the numbers of the living pests and the dead pests were examined after 6 days. The test was carried out with five larvae per group in two replicates.

As a result, the compounds of the following Compound Nos. showed a pesticidal rate of 70% or more at 100 ppm.

1-1, 1-16, 1-21, 1-36, 1-62, 1-63, 1-64, 1-65, 1-82, 1-95, 1-96, 1-99, 1-100, 1-101, 1-103, 1-104, 1-105, 1-115, 1-116, 1-117, 1-118, 1-132, 1-133, 1-134, 1-136, 1-137, 1-138, 1-139, 1-151, 1-152, 1-154, 1-163, 1-164, 1-167, 1-168, 1-169, 1-171, 1-172, 1-173, 1-175, 1-176, 1-177, 1-179, 1-180, 1-183, 1-184, 1-185, 1-187, 1-188, 1-195, 1-196, 1-197, 1-198, 1-199, 1-200, 1-201, 1-202, 1-203, 1-204, 1-205, 1-206, 1-207, 1-208, 1-209, 1-210, 1-211, 1-212, 1-213, 1-214, 1-215, 1-216, 1-217, 1-218, 1-220, 1-221, 1-222, 1-223, 1-224, 1-225, 1-226, 1-227, 1-231, 1-232, 1-233, 1-234, 1-235, 1-236, 1-237, 1-238, 1-239, 1-240, 1-241, 1-242, 2-133, 3-133, 3-163, 3-164, 3-197, 5-1, 5-4,

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5-8, 5-10, 5-11, 5-12, 5-14, 5-15, 5-16, 5-17, 5-18, 5-19, 5-20, 5-21, 5-22, 5-25, 5-27, 5-29, 5-30, 5-31, 5-32, 5-33, 5-34, 5-35, 5-36, 5-37, 5-71, 5-72, 5-73, 5-76, 5-77, 5-78, 5-79, 5-80, 5-81, 5-82, 5-83, 5-84, 5-85, 5-86, 5-87, 5-88, 5-89, 5-90, 5-91, 5-92, 5-93, 5-94, 5-95, 5-96, 5-97, 5-98, 5-99, 5-100, 5-101, 5-102, 5-103, 5-104, 5-105, 5-107, 5-108, 5-109, 5-111, 5-112, 5-128, 6-1, 6-5, 6-6, 6-7, 6-8, 6-9, 6-10, 6-12, 6-13, 6-15, 6-16, 6-18, 6-20, 6-43, 6-44, 6-45, 6-46, 6-47, 6-49, 6-50, 6-52, 6-53, 6-55, 6-56, 6-57, 6-58, 6-59, 6-60, 6-64, 6-68, 6-69, 7-1, 7-6, 7-22, 7-23, 7-169, 7-220, 7-221, 7-222, 7-226, 8-12, 8-13, 9-12

Test Example 3

Pesticidal Test of Penetration Migration against *Spodoptera litura*

A root portion of a radish seedling was immersed for 2 days in a chemical solution in which a test compound had been diluted at a predetermined concentration, then the leaf was cut and put into a 7 cm polyethylene cup having a filter paper laid on the bottom thereof, and 2-stage larvae of *Spodoptera litura* were released. They were left to stand in a thermostatic chamber at 25° C., and the numbers of the living pests and the dead pests were examined after 3 days. The test was carried out with five larvae per group in two replicates.

As a result, the compounds of the following Compound Nos. showed a pesticidal rate of 70% or more at 1 ppm.

1-16, 1-21, 1-36, 1-62, 1-63, 1-64, 1-65, 1-82, 1-95, 1-96, 1-97, 1-99, 1-100, 1-101, 1-103, 1-104, 1-105, 1-115, 1-116, 1-117, 1-118, 1-132, 1-133, 1-134, 1-136, 1-137, 1-138, 1-139, 1-151, 1-152, 1-154, 1-163, 1-164, 1-167, 1-168, 1-169, 1-171, 1-172, 1-173, 1-175, 1-176, 1-177, 1-179, 1-180, 1-184, 1-185, 1-187, 1-188, 1-195, 1-196, 1-197, 1-198, 1-199, 1-202, 1-204, 1-205, 1-206, 1-207, 1-208, 1-209, 1-210, 1-211, 1-212, 1-213, 1-214, 1-215, 1-216, 1-217, 1-218, 1-219, 1-220, 1-221, 1-222, 1-223, 1-225, 1-226, 1-227, 1-231, 1-232, 1-233, 1-234, 1-235, 1-236, 1-241, 1-242, 2-133, 3-133, 3-163, 3-164, 3-197, 5-33, 5-34, 5-76, 5-77, 5-78, 5-79, 5-82, 5-86, 5-92, 5-96, 5-99, 5-101, 5-103, 5-104

Test Example 4

Pesticidal Test Against *Musca domestica*

1 ml of an acetone solution in which a test compound had been diluted at a predetermined concentration was added dropwise to a petri dish having a diameter of 9 cm, and air-dried, and then the female adults of *Musca domestica* were released and the petri dish was capped. They were left to stand in a thermostatic chamber at 25° C., and the numbers of the living pests and the dead pests were examined after 1 day. The test was carried out with five larvae per group in two replicates.

As a result, the compounds of the following Compound Nos. showed a pesticidal rate of 70% or more at 1000 ppm.

1-65, 1-82, 1-104, 1-116, 1-117, 1-118, 1-136, 1-151, 1-152, 1-175, 1-176, 1-177, 1-183, 1-184, 1-187, 1-195, 1-220, 1-221, 1-222, 1-234, 1-235, 1-239, 1-241, 1-242, 5-8, 5-76, 5-77, 5-78, 5-79, 5-80, 5-81, 5-82, 5-86, 5-87, 5-89, 5-92, 5-93, 5-95, 5-96, 5-99, 5-100, 5-101, 5-104, 5-105, 5-112, 6-16, 6-43, 6-44, 6-45, 6-54, 6-55

Test Example 5

Pesticidal Test against *Blattella germanica*

1 ml of an acetone solution in which a test compound had been diluted at a predetermined concentration was added

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dropwise to a petri dish having a diameter of 9 cm, and air-dried, and then the male adults of *Blattella germanica* were released and the petri dish was capped. They were left to stand in a thermostatic chamber at 25° C., and the numbers of the living pests and the dead pests were examined after 1 day. The test was carried out with five larvae per group in two replicates.

As a result, the compounds of the following Compound Nos. showed a pesticidal rate of 70% or more at 1000 ppm.

1-118, 1-133, 1-136, 1-152, 1-168, 1-171, 1-183, 1-196, 1-221, 1-223, 1-225, 1-232, 6-53

Test Example 6

Pesticidal Test Against *Culex pipiens molestus*

1 ml of an acetone solution in which a test compound had been diluted at a predetermined concentration was added dropwise to a petri dish having a diameter of 9 cm, and air-dried, and then the adults of *Culex pipiens molestus* were released and the petri dish was capped. They were left to stand in a thermostatic chamber at 25° C., and the numbers of the living pests and the dead pests were examined after 1 day of treatment. The test was carried out with five larvae per group in two replicates.

As a result, the compound of the following Compound No. showed a pesticidal rate of 70% or more at 1000 ppm.

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Test Example 7

Pesticidal Test Against *Coptotermes formosanus*

20 μ l of an acetone solution in which a test compound had been prepared at a predetermined concentration was added dropwise to the filter paper having a diameter of 2.6 mm included in a polypropylene tube, and air-dried, and then 20 μ l of water was added thereto. *Coptotermes formosanus* was released and the tube was capped. They were left to stand in a thermostatic chamber at 28° C., and the numbers of the living pests and the dead pests were examined after 5 days of treatment. The test was carried out with ten larvae per group in two replicates.

As a result, the compounds of the following Compound Nos. showed a pesticidal rate of 70% or more at 30 ppm.

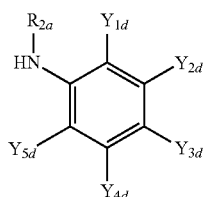
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Industrial Applicability

According to the present invention, it became possible to provide a novel amide derivative. The amide derivative shows a significant effect for a pest control activity, and has a high industrial applicability.

The invention claimed is:

1. A compound represented by the following Formula (6d):



Formula (6d)

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wherein Y_{5d} represents a C1-C3 haloalkyl group;

Y_{1d} represents a hydrogen atom, a halogen atom, a C1-C4 haloalkyl group, a C1-C4 haloalkoxy group, or a C1-C4 haloalkylsulfinyl group;

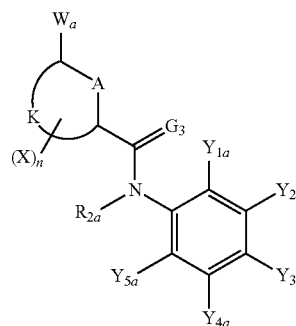
Y_{3d} represents a C2-C6 haloalkyl group;

Y_{2d} and Y_{4d} each independently represent a hydrogen atom, a halogen atom, or a C1-C4 alkyl group;

R_{2a} represents a hydrogen atom or a C1-C4 alkyl group; and

in a case where Y_{1d} represents a hydrogen atom, R_{2a} represents a C1-C4 alkyl group.

2. A compound represented by the following Formula (6a):



Formula (6a)

wherein

A represents a carbon atom, an oxygen atom, a nitrogen atom, an oxidized nitrogen atom or a sulfur atom;

K represents a non-metal atom group necessary for forming a cyclic linking group derived from benzene, pyridine, pyridine-N-oxide or thiazole, in combination with A and two carbon atoms to which A bonds;

X represents a hydrogen atom or a halogen atom, and when there are two or more X's, each X may be the same as or different from each other;

n represents an integer of from 0 to 4;

G₃ represents an oxygen atom or a sulfur atom;

R_{2a} represents a hydrogen atom, a C1-C4 alkyl group, or a group represented by -L-D;

wherein, L represents -C(M₁)(M₂)-, -C(M₁)(M₂)-C(M₃)(M₄)-, -C(M₁)(M₂)-C(M₃)(M₄)-C(M₅)(M₆)-, or -C(M₁)(M₂)-C(M₃)(M₄)-C(M₅)(M₆)-C(M₇)(M₈)-;

M₁ to M₈ each independently represent a hydrogen atom, a halogen atom, a cyano group, a carboxy group, a hydroxy group, a carbamoyl group, or a C1-C4 alkyl group which may have a substituent;

D represents -C(=O)OU₁, -C(=O)U₂, -C(=O)NU₃U₄, -NU₅C(=O)U₆, -S-U₇, -S(=O)U₈, -S(=O)(=O)U₉, -S(=O)(=O)NU₁₀U₁₁, -OU₁₂, -NU₁₃U₁₄, -C(=NU₁₅)U₁₆, -NU₁₇-C(=NU₁₈)U₁₉, or -C=N;

U₁ to U₁₉ each independently represent a hydrogen atom, a hydroxy group, an amino group, a cyano group, a nitro group, a C1-C6 alkyl group which may have a substituent, a C2-C7 alkoxy carbonyl group, a C2-C7 haloalkoxy carbonyl group, a C2-C7 alkyl carbonyl group, a C1-C3 alkylamino group, a phenyl group, or a heterocyclic group;

wherein U₃ and U₄, U₅ and U₆, U₁₀ and U₁₁, U₁₂ and U₁₃, and U₁₄, U₁₅ and U₁₆, and from U₁₇ to U₁₉ may be linked with each other to form a saturated heterocyclic group;

W_a represents a nitro group, an amino group, or -NH-R_{1a};

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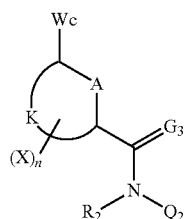
R_{1a} represents a hydrogen atom, a C1-C4 alkyl group, or a group represented by -L-D, wherein L and D have the same definitions as L and D, respectively, in R_{2a} ;

at least one of R_{1a} and R_{2a} represents a group represented by -L-D;

Y_{1a} and Y_{5a} each independently represent a halogen atom, a C1-C6 haloalkoxy group, or a C1-C3 haloalkyl group; in a case where K forms a benzene ring together with A and two carbon atoms to which A bonds, all X's represent hydrogen atoms, R_{2a} represents a hydrogen atom, and Y_{3a} represents a C3 perfluoroalkyl group, Y_{5a} represents a C1-C3 haloalkyl group;

Y_{2a} and Y_{4a} each independently represent a hydrogen atom, a halogen atom, or a C1-C4 alkyl group; and Y_{3a} represents a C2-C5 haloalkyl group.

3. A compound represented by the following Formula (6c):



Formula (6c)

wherein A represents a carbon atom, an oxygen atom, a nitrogen atom, an oxidized nitrogen atom or a sulfur atom;

K represents a non-metal atom group necessary for forming a cyclic linking group derived from benzene, pyridine, pyridine-N-oxide or thiazole, in combination with A and two carbon atoms to which A bonds;

X represents a hydrogen atom or a halogen atom, and when there are two or more X's, each X may be the same as or different from each other;

n represents an integer of from 0 to 3;

G_3 represents an oxygen atom or a sulfur atom;

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R_2 represents a hydrogen atom, a C1-C4 alkyl group, or a group represented by -L-D;

wherein L represents $-C(M_1)(M_2)-$, $-C(M_1)(M_2)C(M_3)(M_4)-$, $-C(M_1)(M_2)-C(M_3)(M_4)-C(M_5)(M_6)-$, or $-C(M_1)(M_2)-C(M_3)(M_4)-C(M_5)(M_6)-C(M_7)(M_8)-$;

M_1 to M_8 each independently represent a hydrogen atom, a halogen atom, a cyano group, a carboxy group, a hydroxy group, a carbamoyl group, or a C1-C4 alkyl group which may have a substituent;

D represents $-C(=O)OU_1$, $-C(=O)U_2$, $-C(=O)NU_3U_4$, $-NU_5C(=O)U_6$, $-S-U_7$, $-S(=O)U_8$, $-S(=O)(=O)U_9$, $-S(=O)(=O)NU_{10}U_{11}$, $-OU_{12}$, $-NU_{13}U_{14}$, $-C(=NU_{15})U_{16}$, $-NU_{17}-C(=NU_{18})U_{19}$, or $-C\equiv N$;

U_1 to U_{19} each independently represent a hydrogen atom, a hydroxy group, an amino group, a cyano group, a nitro group, a C1-C6 alkyl group which may have a substituent, a C2-C7 alkoxy carbonyl group, a C2-C7 haloalkoxy carbonyl group, a C2-C7 alkyl carbonyl group, a C1-C3 alkylamino group, a phenyl group, or a heterocyclic group;

wherein U_3 and U_4 , U_5 and U_6 , U_{10} and U_{11} , U_{12} and U_{13} and U_{14} , U_{15} and U_{16} , and U_{17} to U_{19} may be linked with each other to form a saturated heterocyclic group;

Q_2 represents a phenyl group which may have a substituent or a heterocyclic group which may have a substituent; the substituent of a phenyl group which may have a substituent and a heterocyclic group which may have a substituent represents one or more substituents selected from a group consisting of:

a halogen atom, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C1-C6 haloalkoxy group, a C1-C6 haloalkylthio group, a C1-C6 haloalkylsulfinyl group, and a C1-C6 haloalkylsulfonyl group, and when there are two or more substituents, the substituents may be the same as or different from each other,

Wc represents $-NH-C(M_1)(M_2)-C(M_3)(M_4)-D$;

M_1 , M_2 , M_3 , M_4 , and D have the same definitions as M_1 , M_2 , M_3 , M_4 , and D, respectively, in R_2 .

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